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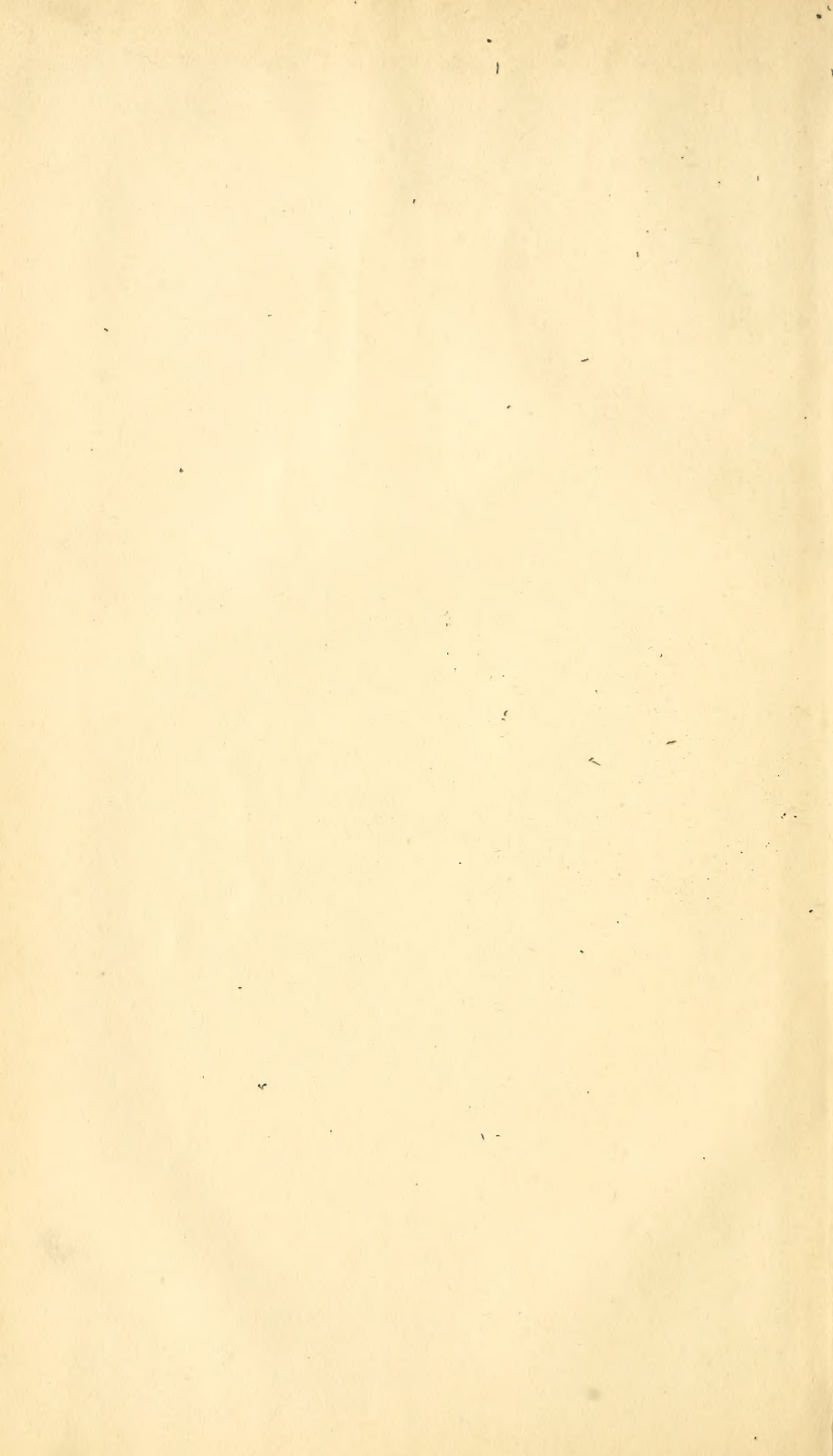
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SPORT
ON THE NILGIRIS
AND IN WYNAAD

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BY

F. W. F. FLETCHER

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TO MY '450

Let love-sick swains
In Cupid's chains
Bound fast, prate of their blisses ;
And rave and swear
Naught can compare
With soft vows, sealed with kisses.

Let Britons bold
The maxim hold
That Cricket's life's elixir ;
No greater bliss
To them than this—
“ Well hit ! by Jove a sixer ! ”

Let Scots proclaim
The “ Royal Game
Of Golf ” without a rival ;
And quaff a brew
Of Mountain Dew
To welcome its revival.

Let horsey boys
Chant loud the joys
Of Polo's mimic battle ;
Strive heart and soul
To reach the goal
Mid rush and “ cuss ” and rattle.

Let those who think
That dropping “ chink ”
In vain attempts at tracing
Each winning “ gee ”
Is ecstasy,
Sing hey the charm of Racing.

Let some opine
That joy divine
Is found in thee, Lawn Tennis ;
Pat-ball at best,
And I protest
That “ joy ” beyond my ken is.

But what are these,
Which others please,
To US, who know the measure
Of bliss past speech
Which those can reach,
Who count *thee* first, my treasure

Then while kind Fate
To hold thee straight
Gives me the power, I'll stifle
All love, save love
Of thy bright groove—
My little, trusty RIFLE !

PREFACE

SOMEONE has said, and said truly, that any "foreword" which touches on the subject matter of the book to which it is prefixed, must be either the preface apologetic or the preface defiant, and that each is equally an insult to the reader. For if an author honestly believes it is necessary to apologise for the shortcomings of his book beforehand, obviously his right course is not to publish the book at all; while if he indulges in prefatory self-laudation, he usurps the mantle of the critic, the reader's undoubted prerogative. Steering, then, between the Scylla of apology and the Charybdis of defiance, I will leave my book severely alone, and will only say that its object is to fill a gap in the sporting literature of India. There are books galore on sport in Northern India and the Central Provinces: sport in Mysore has found an inimitable chronicler in G. P. Sanderson: and other well-known shooting grounds have received their due meed of notice. But I know of only two books, both published many years ago, which deal with sport on the Nilgiris, and of none which takes as its venue that grand shooting country the Wynaad. The first of these books is a brochure entitled "Game," by Hawk-eye (the late General Richard Hamilton), and comprises a series of fugitive papers written for a local newspaper, some of which are breezy descriptions of different

phases of Nilgiri sport. These articles are entertaining and instructive ; but (as I feel sure the genial author would be the first to acknowledge could his spirit be interviewed in the Shades) were never intended to be anything more than the lightest sketches. The other book was written by the late G. A. R. Dawson, and is called "Nilgiri Sporting Reminiscences." The author's drawings, a few brief notes by the late Charles Have-lock, and a chapter on the Ooty Hunt by "Brooksby" of the *Field*, make this volume of value : of the rest of the letterpress I will not speak. A few chapters in the "Old Forest Ranger" also touch on Nilgiri sport, but these can hardly be taken seriously. So the odd fact remains that though the sport afforded by the Nilgiris and the Wynaad is varied and in some respects unique, and though these hills have been the happy hunting grounds of a long line of famous Nimrods, only fragmentary descriptions of the Natural History and sport of the Blue Mountains have as yet been written, and thus, even in these latter days, there is room for a book on the subject.

My book is an attempt to fill this hiatus.

I fear there may be some readers who will not dip very far into this volume before they throw it down with a "pshaw! another of those wonderful men who never go out without seeing game, and who never shoot without killing." Let me disarm such critics by saying at once that, like every man who shoots much, I have had my full share of blank days. But a record of these would make very poor reading ; and so, in illustrating the various phases of Nilgiri sport by incidents from my shooting journal, I have purposely chosen those which had a successful ending. If, therefore, my book should make me appear to have been

unduly fortunate, I would bid the reader remember that the illusion has been presented in his own interest—an illusion for which, after this candid avowal, every just and discriminating critic will hold me blameless.

I have thought it well to give a description of the country with which the book deals. But a history of the Nilgiris and the Wynaad is far too large a subject to be adequately handled within the narrow limits of a single chapter—all the space I can spare ; and I have merely been able to give a cursory survey of the two plateaux, with the view of affording the reader a glimpse of the magnificent country in which sixteen of the best, and withal the happiest, years of my life have been spent.

A few of the incidents recorded in these pages appeared originally in the *Asian*, and I am much indebted to the late proprietor of that paper for allowing me to reproduce them here. My thanks are also due to Mr. A. T. W. Penn, the well-known photographer of Ootacamund, for permission to use his fine series of animal photographs. Mr. R. Lydekker has been kind enough to go through the list of Mammals and Game Birds found on the Nilgiris and in Wynaad, given in Appendix I, and his approval makes this list authoritative.

F. W. F. F.

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Scale. 1 Inch = 3 Miles.

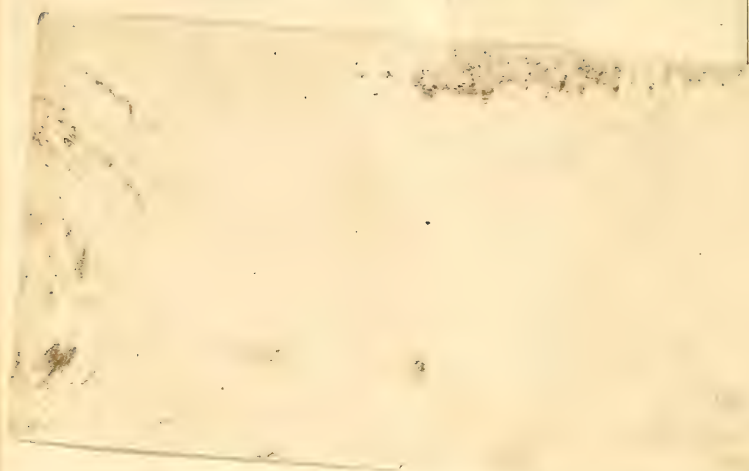




ADDENDA ET CORRIGENDA.

AGE

- I. Heading, "THE NILGIRIS." Add footnote, Nila = blue, giri = mountain.
- I. Under verse heading enter "Kipling."
3. Line 14, *for* "Pundaliur" *read* "Pundalur."
51. ,, 16, *for* "where" *read* "near which."
51. ,, 8, *delete* comma at end of line.
55. ,, 14, *for* "bet he" *read* "be the."



THE NILGIRIS AND THE
NILGIRI-WYNAAD

THE NILGIRIS

“Who hath desired the sea? His sea that his being
fulfils?

So and no otherwise, so and no otherwise,
Hillmen desire their Hills.”

THE Peninsula of India is in shape a triangle, the east and west sides of which converge rapidly to an acute angle at Cape Comorin. Down these sides, —known as the Coromandel and Malabar Coasts—run the Eastern Ghats and the Western Ghats, or Sahyadris, respectively. The latter, which throughout their course are far higher and bolder than the eastern range, approach the coast in North Malabar; thence they trend in a south-easterly direction, and culminate in the two grand bluffs of Nilgiri Peak (8,118 ft.) and Sispara Peak (8,096 ft.). Within these limits, —the two peaks forming the north and south points of its western face—the Nilgiri plateau rises, and running at right angles to the strike of the Sahyadris, links the Western with the Eastern Ghats. From Nilgiri Peak the north face of the plateau pursues a fairly level line; from Sispara Peak the south face runs obliquely north-east, till it meets the opposite frontier in the bold headland of Rangaswami's Pillar,—a hill which marks at once

the eastern angle of the plateau and the point of junction between the western mountains and the eastern hills. In shape, therefore, the Nilgiri tableland may be described as a right-angled triangle, the right angle being marked by Nilgiri Peak at the point where the north and west frontiers meet : the shortest side being the western line of the Kundahs ; and the longest side the south face, from Sispara to Rangaswami's Pillar.

This plateau lies between latitude $11^{\circ} 8'$ and $11^{\circ} 87'$ north, and longitude $76^{\circ} 27'$ and $77^{\circ} 4'$ east. Two ranges, the Nilgiris proper or Nidumallais, and the Kundahs, are usually held to be comprised within its limits ; but they are by no means distinct, the rolling grass uplands of the middle and western Nidumallais merging insensibly into the rugged Kundahs on the extreme west. Both ranges pursue generally a north and south direction. The Nidumallais stretch north towards the edge of the plateau overlooking Mysore in undulating hills : the eastern slopes run out in foot-hills to the Coimbatore country ; while the western slopes drop down to the secondary tableland of Wynaad in a sharp though not precipitous fall. To the south the range uniformly decreases in height till it meets the level country known as the Palghat Gap, through which the railway gains access to the coast. The Kundahs are infinitely grander ; and on their western face they fall to the plain of Malabar in a sheer precipice, some thousands of feet in height. The casual visitor, confining his excursions to the neighbourhood of Ootacamund, takes away a very erroneous impression of the Nilgiris. To gain an adequate idea of these mountains, he must climb to the summit of one of the giant peaks of the

Kundahs, and survey the plateau from there. Seen from such a vantage point, the Nilgiris compare not unfavourably in point of grandeur with any mountain range of their size in the world.

An upper and a lower plateau are comprised in the Nidumallais, the line of division being the Dodabetta ridge. The upper step, which is about 1,500 feet higher than the eastern one, embraces the tract lying between the Dodabetta ridge and the Kundahs, and is called by the natives the Melnad (upland country). The western spurs of Dodabetta, on which the town of Ootacamund is built, are more or less broken and steep; but, as indicated above, they lose their rugged character a short distance from Ootacamund, and run out to the Kundahs in low, rounded, grass hills. After the junction of these uplands with the Kundah chain, the country rises into a series of fantastic peaks, and the plateau assumes a grander, bolder aspect than before.

The lower plateau starts from the east and south faces of Dodabetta, and takes in the eastern portion of the tableland. The central ridge alluded to above has the peak of Dodabetta (8,642 ft., the highest of the range) as its southern, and Snowdon peak (8,299 ft.) as its northern boundary.

The Nilgiri plateau is bounded on the north by the Mysore country, on the north-west, south, and west by the district of Malabar, and on the south-east, east, and north-east by the district of Coimbatore. Its greatest length is about thirty-five miles, and its breadth about twenty miles. It comprises an area of 957 square miles, with a population according to the census of 1901 of 111,437 souls, and contains four settlements or stations.

Ootacamund, the oldest settlement, is on the higher plateau, and lies in the basin between two spurs running out from Dodabetta. The highest point of the southern spur is Elk Hill (8,090 ft.) and of the northern, Club Hill (8,030 ft.). It takes its name from the old Toda *mund* (village) in the Botanic Gardens, near which the first house was built; though I have seen some fanciful derivations for the name. The oddest is the one which avers that when Mr. Sullivan was bargaining with the Todas for the land he acquired near Stonehouse, the headman, who boasted a smattering of English, said "Pay me, and you tak' the mund," and hence the settlement was dubbed Utakamund!

Coonoor, ten miles south-east of Ootacamund, is situated at the head of a grand gorge facing the low country, up which wind the ghat road and the railway. There is a striking difference between the vegetation here and at the older settlement. Round Coonoor, owing to the lower elevation and warmer climate, it is sub-tropical, while at Ootacamund it savours distinctly of the temperate zone. An equally marked difference exists between the climate of the two stations, Coonoor being warmer, and perhaps more relaxing, than Ootacamund with its cold but invigorating air. The elevation of Coonoor is a little under 6,000 feet.

Wellington, the military station, lies in a valley a couple of miles north-east of Coonoor, and is more sheltered than the latter from the mist and wind which at times sweep up the funnel formed by the Ghat.

Kotagiri, twelve miles north-east of Coonoor, is built at the head of a fine Ghat, and has an elevation

of 6,500 feet. Possibly it possesses the best climate of all the hill stations, but it has never been popular, and is still a small settlement.

The population of the various stations, as determined by the 1901 census, is :—

Ootacamund	...	...	...	18596
Coonoor	...	...	...	8525
Wellington	...	...	...	4793
Kotagiri	...	...	...	5100

The Nilgiris are remarkably well watered, a stream coursing down almost every valley or gorge between the hills ; but only a few of these are large enough to merit the name of river. On the north side of the plateau the Pykara river rises near Mukarti peak, and for the first part of its course flows in a north-easterly direction. As it approaches the edge of the hills, it turns west, and tumbles in a series of cascades to the Wynaad tableland, 2,500 feet below. Thence, as the Moyar river, it runs east along the base of the Nilgiris, through the deep gorge known as the Mysore Ditch, and discharges into the Bhavani a little north of Danayakankota below Rangaswami's Pillar in Coimbatore.

The Bhavani river follows the southern base of the Nilgiris, and receives the numerous streams running down the southern spurs of the plateau, its chief feeders being the Kundah and Coonoor streams.

Many large streams course down the mighty western buttress of the Kundahs, the principal being those rising to the north and south of Mukarti peak (8,380 feet), which unite on the Malabar plain to form the Kurrumpuzha, one of the chief feeders of the Beypur river. This last receives a perfect network of

streams coming down from the Wynaad plateau, and discharges into the sea below Calicut, affording a navigable waterway to the coast.

As might be expected on a mountainous tableland, dropping down sharply to the plains on all sides, waterfalls are numerous ; but none are of any great height. And curiously enough, the highest are on the southern and eastern faces of the plateau, where the descent to the low country is far more gradual than on the west. On the south are Kolakambi Fall, about four hundred feet, and Kateri Fall, one hundred and eighty feet,—the latter being harnessed to provide power for the cordite factory at Aruvenkad near Wellington. On the east is St. Catherine's Fall, two hundred and fifty feet ; on the north Kalhatti Fall, one hundred and seventy feet ; while on the north-west the Pykara river descends to the Wynaad in two fine falls, the upper one hundred and eighty feet, the lower two hundred. The western face of the hills drops sheer to the Malabar plain in a rocky wall some thousands of feet in height, and this face is seamed with cascades, which, falling in lines of silver through the dense forest that clothes the hills on this side to the cliff line, are picturesque in the extreme, but none is important enough to merit detailed mention.

The higher part of the plateau, or Melnad, including the station of Ootacamund, is much exposed to the south-west monsoon, and from the middle of June to the middle of September high cold winds prevail. Coonoor is sheltered by the vast mountain mass of Dodabetta, and during this period possesses a far pleasanter climate. But during the prevalence of the north-east monsoon, the conditions are reversed, for

Coonoor, standing at the edge of the plateau, is exposed to the full force of this monsoon, while Ootacamund, on the western slopes of Dodabetta, is in turn protected by that barrier.

The mean temperature of Ootacamund, calculated over a long series of years, is about 56° , of Coonoor about 64° , of Wellington 62° , and of Kotagiri 62° .

Statistics of rainfall are available for more than thirty years, which give Ootacamund an average fall of $48\frac{1}{2}$ inches, Coonoor 62 inches, and Wellington nearly 51 inches. Taking the figures for all the stations where gauges have been maintained together, the average for the District works out at 60.63 inches. This calculation, it should be noted, takes no account of the rainfall on the western slopes, or in the Nilgiri-Wynaad. Had statistics for these portions of the District been included, the average would be far higher. These figures strikingly exemplify to what a marked extent the rainfall is affected by situation in a hilly, broken plateau like the Nilgiris. As the crow flies, the distance between Wellington and Coonoor is not much more than a mile, yet the average rainfall over three decades shows a difference of no less than eleven inches between the two stations. It is not too much to say that on the Nilgiris every valley has its own climate, varying with the configuration of the surrounding country.

In the winter season, from about December to February, at Ootacamund the days are fine and hot, the nights cold and frosty. At this time of the year the low-lying valleys are frequently covered with hoar frost, while the cold on the Kundahs is intense. Speaking generally, it may be said that the climate of the Nilgiris is very bracing and salubrious, except

perhaps during the early months of the year, when the north-east winds are trying.

With such marked variations in altitude, climate, and rainfall, the plateau naturally possesses a varied flora. Botanically, the hills may be divided into three zones, each with a distinct flora, though where the zones meet the line of division is not sharp.

(1) *The sholas of the plateau proper.* These woods contain no trees of any value as timber. They are evergreen; and though, owing to the altitude, the trees are all more or less dwarfed, the varying tints they assume endow them with a rare beauty. Originally, these lovely *sholas* clothed every ravine; but for many years after the settlement of the hills no steps were taken by Government towards their preservation, and they were ruthlessly destroyed; while within the last forty years eucalypti and other Australian trees have been so widely planted that the character of the hills has been completely changed, and on every side the eye meets with nothing but a monotonous sea of gaunt blue gums. From a picturesque standpoint, the advent of the eucalyptus has ruined the hill stations. To gain an idea of the pristine charm that so enraptured early visitors, one must now travel beyond the furthest limit of civilisation, —away to the solitudes of the Kundahs, untouched and undesecrated by the hand of man. The following are the principal trees found in these evergreen *sholas* on the summit of the plateau.

Elæocarpus oblongus, and other varieties; *Eugenia*, many species; *Ilex Wightiana*; *Ternstroemia Japonica*; *Gordonia obtusa*; *Michelia Nilagirica*; *Cinnamomum Zeylanicum*; and many others of lesser note.

On the grass lands between the *sholas* are found

Rhododendron arboreum, which in the autumn makes the hillsides gay with clusters of brilliant carmine flowers: *Wendlandia Nottoniana*; *Dodonæa viscosa*; and other kinds. Mention, too, must be made of the numerous species of *Strobilanthes*, especially *Kunthianus*, which when in bloom turns the downs from green to vivid blue.

(2) *The deciduous forests.* These occur at a much lower elevation. During the dry months, between the closing of the north-east monsoon and the spring showers, the trees are more or less deciduous, though they are never actually leafless like an English copse in winter. With the first showers they burst into leaf, when the glory of their rejuvenescence defies description; and they retain their vegetation, passing through a gamut of colour from green to red, till the advent of the next dry season. The chief timber-yielding trees in this region are

Tectona grandis—teak, which reigns supreme amongst Indian woods; *Dalbergia latifolia*—blackwood, or East Indian rosewood; *Lagerstræmia microcarpa*—venteak; *Cedrela toona*—white cedar; *Pterocarpus marsupium*—vengay; *Terminalia tomentosa*—mutti; *Chloroxylon Swietenia*—satinwood; *Santalum album*—sandalwood.

Other fine trees are *Bombax Malabaricum*, with gorgeous red blooms and pods filled with silk cotton; *Hardwickia binata*; *Albizzia odoratissima*, the wood of which is used by the natives for cart wheels; *Phyllanthus emblica*, yielding a sour, hard fruit which the natives pickle; and the bamboos, *Bambusa arundinacea* and *Dendrocalamus strictus*, which are put to an infinite variety of uses.

(3) *The evergreen or Ghat forests.* These occur

chiefly on the western slopes, up to an elevation of 4,000 feet. They reach their greatest perfection from the edge of the Wynaad plateau to almost the foot of the ghats. The trees are enormous, and owing to the dense shade throughout the year, underwood is not heavy. The continuous moisture results in a wonderful profusion of rattans (*calamus*), tree ferns, giant creepers, and reed bamboos (*Ochlandra Rheedii*, *Teinostachyum Wightii*, and *Oxytenanthera Thwaitesii*.) Amongst the tree ferns is *Alsophila crinata*, surely the finest of the genus; and amongst the creepers mention must be made of *Hexacentris Mysorensis* with hanging festoons of yellow blossoms as beautiful as an orchid, and *Gloriosa superba* with large crinkled flowers, first green tipped with red, then red and yellow, then red alone.

These grand forests contain a large variety of trees, those which yield valuable timber being

Diospyros ebenum—ebony; *Acrocarpus fraxinifolius*—red cedar; *Artocarpus hirsuta*—iynee or wild jak; *Messua ferrea*—ironwood; *Hopea parviflora*—iram-pakam; *Calophyllum tomentosum*—poon, the last a most noble tree with a stem often two hundred and fifty feet in height, and straight as an arrow.

It is curious that the Nilgiris,—and especially the dense, moist, warm ghat forests—should be so poor in orchids. The chief varieties are *Cælogyne corrugata*—common round Naduvatam; *Aerides rubrum* (syn. *radicosum*)—common round Naduvatam; *Aerides roseum*—found on the northern slopes; *Aerides Lindleyanum*—on northern and eastern slopes; *Vanda Roxburghii*—on northern and eastern slopes; *Calanthe masuca*—on northern and eastern slopes.

In the Nilgiri-Wynaad *Dendrobium album* (syn.

aqueum)—4,000 feet and upwards ; *Dendrobium heterocarpum* (syn. *aureum*)—middle belt, 3,000 feet to 3,500 feet ; *Dendrobium barbatulum*—middle belt ; *Dendrobium chlorops*—middle belt ; *Dendrobium crepidatum*—rare in middle belt ; *Aerides crispum*—common in middle belt ; *Aerides maculosum*—round Gudalur ; *Aerides cylindricum*—common in middle belt ; *Rhyncostylis retusa*—round Gudalur ; *Cymbidium aloifolium*—common everywhere ; *Pholidota imbricata*—common everywhere ; *Habenaria Susannæ*—a grand terrestrial variety common on grass hills round Devala. There are many other kinds, of merely botanical interest.

A list of the mammals and game birds found on the Nilgiris and in Nilgiri-Wynaad is given in Appendix I.

The first record of Europeans having visited the Nilgiris occurs in a narrative written by a priest of the Christians of St. Thomas in 1602. A few years previously a report had reached the West Coast that certain villages “in a country called Todamala” were inhabited by people who had once been members of the Syrian Church, “but then had nothing but the name” ; and in the above year Francis Roy, first Roman Catholic Bishop of the Syrian Church in Malabar, despatched a priest and deacon of that community to verify the rumour. They reached “Todamala” ; but their report not being considered full enough, the Reverend Jacome Ferreira was sent on a second mission. According to his narrative, he “proceeded via Manarecate (? Manarghat),” accompanied by a native convert, “nephew of the Samuri (? Zamorin) Rajah.” Their route “led them over steep and rugged mountains infested with elephants

and tigers." On the third day they "reached a Badaga village called Meleuntao (? Melkundah)." Here they met the "chief (?)" of the Todas, but he gave no information to support the supposition "that either they or their ancestors ever had anything to do with any form of Christianity." So apparently the worthy priest (who does not explain how he contrived to converse with the Toda "chieftain") returned after a bootless mission, no wiser than when he came.

Then comes a hiatus of two hundred years before we get another record of Europeans having penetrated these mountain fastnesses. After the fall of Seringapatam in 1799, the Marquis of Wellesley (then Governor-General of India) decided that a survey of the country annexed by the British was desirable; and for this purpose Dr. Buchanan started from Seringapatam on May 10th, 1800. On October 24th he had reached Danayakankota, a fort on the Bhavani a little below its junction with the Moyar, and apparently the headquarters of the Revenue Division to which the unknown Nilgiris then appertained. On the following day he "took a long and fatiguing walk to the top of the western hills," the spot he reached being probably Arakod, below Rangaswami's Pillar. Dr. Buchanan does not seem to have carried his exploration of the hills further.

In 1812 Mr. Garrow, then Collector of Coimbatore, sent a European surveyor named William Keys up to the Nilgiris. Six years later two sportsmen ascended the hills as far as Kotagiri "for shikar." The glowing report they took back, "particularly of the coldness of the climate," induced a party to repeat the excursion in January, 1819. Mr. J. Sullivan, who had succeeded

Mr. Garrow as Collector of Coimbatore, was a member of this party; and his visit marks an epoch in the history of the Nilgiris, for he was so enraptured by the climate and scenery that he spared no effort to make the glories of the plateau known and to effect its colonisation. A long and interesting account of the journey appeared in the *Government Gazette* of January 30th, 1819. Mr. Sullivan was back in May of that year, accompanied by the naturalist Leschenault de la Tour. This visit resulted in a survey of the hills, and the construction of the first track, the old Srimugai Pass. Within a year more than twenty Europeans had climbed the hills, including a lady: unfortunately the name of this Amazon has not survived; but as it is on record that "she gave her bearers very little trouble," we may conclude that she was as charming as she was bold.

In March, 1821, a letter appeared in the *Madras Gazette*, giving a narrative of a journey to the "Mukurti belt," in which occurs the first mention of Ootacamund, under the guise of "Wotakymund." If he was a sportsman, what wondrous sights this earliest visitor to the Kundahs must have seen! Next year a report by Assistant Surgeon Orton was published, in the course of which he writes, "in the Torder village of Wuttacamund I was informed that no death had happened for three years," an early testimony to the salubrity of the climate. Meanwhile, in 1820, Mr. Sullivan had purchased from the Todas a site on the western slope of Dodabetta, and there he built the first house, "Stonehouse," now the offices of Government. The house was close to the Toda village of "Wottakamund," and from this association the settlement took its name.

In 1823 a survey of the hills was carried out by Captain Ward ; and in this year Mr. Sullivan induced the Government to finish the road running across the hills to Wynaad by Gudalur, "thus completing the communication between the eastern and western coasts." This, the old Ghat, is scarcely a triumph of engineering skill, being in places almost as steep as the wall of a house ; but it served a useful purpose till the new Ghat was made, and is still the road used by foot passengers. He also put the Gazalhatti Pass to Mysore in order ; and in the following year he obtained a grant of Rs. 6500 for opening the "Karkoot Pass"—the Karkur Ghat to Calicut through Nilambur—and for repairing the road connecting this Ghat with the Mysore frontier. The zeal displayed by Mr. Sullivan in opening up communications with the Nilgiris on all sides bore speedy fruit in an influx of visitors from even distant Bombay ; and to this fervent lover of the Nilgiris the plateau owes more than to anyone before or since : indeed, the "Queen of Indian Hill Stations" may truly be called his creation. Two years later the lake was formed by a *bund* across the valley at the foot of the Dodabetta spurs ; and Mr. Sullivan built "Southdowns," now known as "Bishopsdown," and, alas, a mere ruin. At the same time, Dr. Haines began building on a large scale on Club Hill, and Captain Macpherson on Elk Hill.

At the end of 1826, when Sir Thomas Munro visited the hills, there were, according to Mr. Sullivan's report, seventeen houses fit for European occupation. Next year Mr. Stephen Rumbold Lushington, then Governor of Madras and another enthusiastic lover of the Blue Mountains, constituted Ootacamund "the sanatorium of Madras." This gave

a great impetus to house building, for by 1833 the number of houses had risen to 102. St. Stephen's church was built: a grammar school, club (the work of Sir William Rumbold), and jail were established, and three large shops opened by enterprising Parsis from Bombay; while the completion of the first Coonoor ghat led to the founding of that station. "It will be the glory of Mr. Lushington's Government," writes Captain Limond in 1832, "without extravagant hyperbole, that he introduced Europe into Asia."

Sir Frederick Adam succeeded, and in 1837 Ootacamund was made a "military bazaar." He took considerable interest in the hills, and the assessment to be paid by settlers was fixed, and the right of the Todas to the Nilgiris acknowledged. Lord Elphinstone, who followed, built himself a large country house in the Kaity valley, a few miles from Ootacamund, and furnished it in the most luxurious style: this house is now the headquarters of the Basel Mission. During his tenure of office the first coffee estates were opened on the eastern slopes; and several years later, under the Governorship of the Marquis of Tweeddale, the cultivation of coffee was started on the southern slopes and in Wynaad. Wellington barracks were begun in 1851, and thenceforward the growth of the settlements was rapid, until at the present day the Nilgiris stand supreme amongst the hill sanatoria of India.

In or about 1828 the hills were transferred to the Malabar district. In 1843 Lord Tweeddale ordered the re-transfer of the eastern portion of the plateau to Coimbatore, leaving the tract west of the Pykara river to Malabar. In 1858 this latter tract

and the Kundahs were brought under the jurisdiction of the Small Cause Court which had been established at Ootacamund. In 1863 the anomaly of dividing the hills between two Districts was abolished, and the Malabar portion annexed to the Coimbatore Collectorate. Five years later the importance of the Nilgiris was recognised, and they were formed into a separate District, Mr. Breeks being appointed the first Commissioner. In 1873 the Ouchterlony Valley was added to the Nilgiris, and finally the Cherankod, Nambalakod, and Munnanad *amshams* of South-eastern Wynaad were transferred, thus constituting the Nilgiris District as it stands to-day.

Writing of these early days, the *shikari* naturally draws a mental picture of what the hills must then have been. Verily, the "Old Forest Ranger," "Hawkeye," "Rifle," and all the line of sportsmen who trod the hills in days of yore, must have walked in the Elysian Fields. Time and again old residents have told me how in those far-off days "Ooty" was an earthly paradise, with snug bungalows half hidden in lovely *sholas*: when folks walked or rode, and a carriage was unknown. Then sambur roamed over every hill, and harboured in every *shola*. Ibex were not far to seek, and the cheery crow of the junglecock from every thicket marked the opening and closing of the day. Elephants and bison were found on the Kundahs; while tigers, panthers, and bears were common all over the hills. But alas! the old order has changed; the *dulce* has given way to the *utile*; and Ootacamund, from a sportsman's standpoint, has been shorn of its old-time glories. The grand indigenous *sholas* have been cleared to make way for interminable forests of ugly eucalyptus and wattle, and before the

advent of civilisation the game has retreated to fastnesses among the distant western hills. Peafowl and bears are extinct on the plateau, while, where in former years ibex and sambur roamed in herds, now you will not find one. The man who looks for sport in these degenerate days must wander far from the haunts of man, away up amongst the towering crags of the Kundahs. There at least Dame Nature still reigns ; and that her sway may continue undisturbed must be the prayer of every man who, like myself, loves the Blue Hills. But over the portals of modern Ootacamund, with its railway and its motor cars and all the other things that proclaim the march of progress, let there be written

Sic transit gloria (Ootaca)mundi.

THE WYNAAD

It's the great, big, broad land 'way up yonder,
It's the forests where silence has lease ;
It's the beauty that thrills me with wonder,
It's the stillness that fills me with peace.
The strong life that never knows harness :
The wilds where the elephants call :
The freshness—the freedom—the farness—
Oh God ! how I'm stuck on it all !—*R. W. Service.*

THE plateaux of the Nilgiris and the Wynaad may be described as two gigantic steps to the West Coast. As already said, the higher plateau drops down on the north to a narrow, forest-covered flat which, lying between the foot of the mountains and the Moyar river, separates the Nilgiris from the Mysore country and the District of Coimbatore ; on the east and south it runs out in foot-hills to the plain of Coimbatore and Malabar ; and on the west it falls in tremendous precipices also to Malabar. But on the north-west it descends to the tableland of the Wynaad in a steep slope of 3,500 feet ; and thence the latter plateau runs out in a secondary step for some twenty miles before it in turn drops down to the Malabar plain in an abrupt fall of similar height. This subsidiary plateau of Wynaad comprises three main divisions, known as North, South, and South-East Wynaad. The last named, together with the Ouchterlony

Valley, is called the Nilgiri-Wynaad, forming the Gudalur *talug* of the Nilgiris District ; the rest of the Wynaad being attached to Malabar. The South-East or Nilgiri-Wynaad, split up into the three *amshams* of Cherankod, Nambalakod, and Munnanaad, is the country in which I have spent the best sixteen years of my life ; and it is with this part of the Wynaad I here propose to deal.

Twenty-one miles from Ootacamund, measured along the splendid road which runs from that town to Calicut *viâ* Gudalur, Devala, Pundalur, Cherambadi, Vayitri, and the Tamarasseri Ghat, is the hamlet of Naduvatam, perched on the north-western edge of the higher plateau ; and it is from this point that the descent to the Wynaad begins. From here a wonderful panorama of the Nilgiri-Wynaad is obtained. The ground falls from one's very feet in a steep incline, down which winds the Ghat road, turning and twisting on itself like a huge white snake, till it reaches the town of Gudalur, spread out in full view below. To the right the cliffs curve round in horseshoe form, and down them the Pykara river tumbles in long leaps. To the left the view is blocked by the bold headland of Gudalurmallai, behind which nestles the Ouchterlony Valley, sheltered by the line of the Kundahs from Mudimund to the giant dome of Nilgiri Peak. Below spreads out the Wynaad tableland, looking from this height as level as a billiard table, one sea of dark green forest, broken only by the softer green of the paddy fields, as they wind in and out between the hills. Northward in the far distance the picture is closed by the low hills which mark the beginning of the Mysore country : westward, in the middle distance, rises the Marpanmadi ridge with the twin peaks of Rockwood

and Needlerock sharply silhouetted against the sky. To the right of this ridge, and twenty miles further inland, stands the isolated dome of Sultan's Battery ; while dim and blue on the western horizon runs the serrated line of the grand Vellarimallais.

South-East Wynaad contains no settlement of any importance. The resident population is very small, and by far the greater part of the labour required for its tea and coffee estates is drawn from Mysore and Malabar. The only villages which merit notice are :

Gudalur, the headquarters of the *talug*, with a population of 2,500. The chief buildings are the *katcheri*, in which the Deputy *tahsildar* (also District *munsiff*) and the *sheristadar* (also Sub-Registrar) hold their courts ; the hospital, the traveller's bungalow, the Protestant and Roman Catholic churches, the police-station, and the post- and telegraph-offices. A large market is held every Sunday, to which are brought supplies of *ragi* for the Kanarese coolies, rice, *cholam*, *gram*, and other grains ; this is attended by itinerant petty Mappilla traders from the Coast, but the resident shopkeepers are all Ravuthers or Tamil-speaking Muhammedans. Gudalur is the meeting point of three important roads, from Ootacamund, Mysore, and Sultan's Battery, and from this fact its name of "junction town" is said to be derived.

Devala lies ten miles further on, on the trunk road to the West Coast. During the gold-boom in the early 'eighties it rose to be an important mining centre, with a European population of about three hundred ; but its glory faded with the bursting of the gold bubble, and it is now merely a cluster of native huts, with a small bazaar and a native population of four hundred. It

contains a post- and telegraph-office, police-station, and traveller's bungalow. On Professor Eastwick rests the responsibility for the startling assertion that Devala is identical with "the land of *Havilah*, where there is gold."

A local tradition ascribes the old native gold workings, with which the surrounding hills are riddled, to a bygone race called the Veddas, whose chief ruled from a vanished fort built on a hill opposite to the police station. The legend relates how the Kurumbranad Rajah, learning of the golden hoard accumulated by the Vedda chieftain, came up to Devala on plunder bent ; whereupon the treasure was placed in a copper pot and sunk for safety in the little tank, called the Shulikolam, lying half-way between Devala and Nadghani. Cheated out of his expected booty, the Kurumbranad potentate indulged in wholesale throat-cutting, made a clean sweep of the Veddas, handed over the country to the Varnavar of Nambalakod, and departed. Then the Varnavar itched to finger the gold. The gods were duly propitiated, chains were fastened to the big copper pot at the bottom of the tank, and elephants were set to haul it out. Up came the pot ; but the Veddas' curse was strong, and it worked. At the critical moment the chains slipped, down sank the pot again to its hiding-place, and the only fruit of all the toil was the copper cover, which came away with the chains. Then the elements took a hand in the preservation of the treasure, for the wind howled and the rain poured down in a storm the like of which had never been known. The robbers fled in terror, but they could not shake off the curse. That same night the Varnavar's son and most of the people who had

helped to lay sacrilegious hands on the gold died ; and the treasure still lies snug at the bottom of the Shulikolam, waiting to wreak the same dire vengeance on anyone who may be foolhardy enough to attempt its recovery.

A similar legend of buried treasure is current in regard to the small hollow near the bungalow on Woodbriar Estate, which once possibly was a tank. Close by here another Vedda fort is said to have existed, whose chief also hid his gold when the Kurumbranad Rajah made his raid. It may well be that at one time a race called Veddas held sway over South-East Wynaad, who were wiped out by the Rajah from the West Coast ; but he must have done his work of extermination most effectually, for not a trace of the vanished people now remains. Local tradition asserts that a remnant of the tribe is still to be found in the jungles of Mysore and Malabar ; but they have never been discovered, nor can the vanished Veddas be identified with any of the existing jungle tribes. Certain it is that the story of the Vedda chiefs and their buried gold obtains wide credence to this day ; and the lease of the Woodbriar Estate, held from the Nilambur *tirumalpad*, stipulates that any treasure found on the property shall be surrendered to the *jenmi*, while an application to search for the gold in the Shulikolam, made some years ago by a European, was refused by the *tirumalpad*.

Pundalur, five miles beyond Devala on the same trunk road, also rose into prominence during the mining boom, and sank into insignificance when the mines shut down. It consists now of only a few bazaars, and all that remains to mark its former prosperity is the old racecourse round the swamp, a

couple of iron-roofed buildings above the bazaar, and odds and ends of mining machinery scattered along the road.

Cherambadi lies eight miles further on the same road, on the confines of the District. It is merely a small village, containing a traveller's bungalow, post-office, and police-station.

Devara Shola is a bazaar which has sprung into existence since the opening of the tea Estate of the same name. It is seven miles from Gudalur, on the Sultan's Battery road.

Nellakota is a village three miles further along the same road, and contains a post and telegraph-office, police-station, and traveller's bungalow. Round here are clustered the only coffee estates now existing in South-East Wynaad. At this point a branch road takes off, and running through my own Estate, meets the great Ootacamund-Calicut road at Devala.

Nelliyalam, a couple of miles off the branch road which, starting from Devala, meets the main road again at "Mango Range," is the residence of the *Nelliyalam arasu*, a Kanarese who has been recognised as the *jenmi* of a large area of land in South-East Wynaad. How this Kanarese family became landowners in Wynaad is difficult to trace; apparently they owe their Estate to the generosity of a Collector of Malabar who in the early 'sixties assumed their title to the land.

The Wynaad has gained an unenviable notoriety in the matter of climate, and has been described as a dense jungle, reeking with malaria, in which the fever demon holds undisputed sway. There can be no doubt that when the country was first opened by the pioneers of the coffee industry, this reputation

was to a large extent deserved ; and even now there are places which can only be characterised as fever-traps, such as Tippakadu on the Mysore frontier, and the whole belt of light jungle which skirts the northern foot of the Nilgiri plateau (though this tract does not belong to Wynaad proper), particular spots in the extreme west of the Nilgiri-Wynaad, and the forest generally at a lower elevation than 2,000 feet. But taking the country as a whole, it is beyond question that the prevalence of malarial fever is far lower than, say, forty years ago. What cause has wrought this improvement, I cannot say with certainty ; but it is a well-known fact that in every forest belt in the tropics, fever is let loose with the first turning of the soil, and that the disease abates in virulence, if it does not wholly disappear, as the country is opened up, the jungle cleared, and the land exposed to the action of light and air. It is a reasonable presumption that these same causes have effected the change in the climate of Wynaad. Narrowing my remarks down to my own district of Nellakota, I can only say that during a continuous residence there of sixteen years I never suffered from malarial fever for a single day. It was only when I began to open in rubber in the jungle below the Ghats, at an elevation of from 300 feet to 1,500 feet, that I fell a victim to the scourge. In fact, I can conceive no more perfect climate than that the higher portion of the Nellakota District possesses. Without the bleakness of the Nilgiri plateau, it is always pleasant, the thermometer, even in the hottest months, never climbing above about eighty degrees. The average annual rainfall is considerably higher than on the Nilgiris proper, ranging from 60 inches in the east of the district to 120 inches in the extreme west ;

but though there are spells of continuous wet during the south-west monsoon, outdoor exercise then is never attended by unpleasant consequences if ordinary precautions are taken. In my view, the climate of Nellakota at and above an elevation of 3,800 feet just hits the happy mean.

The seasons in South-East Wynaad are marked by extraordinary regularity. From October to the end of November, sometimes well into December, the north-east monsoon gives heavy showers: January to March are dry months: during April and May there are frequent showers, the "blossom showers" so anxiously awaited by the coffee planter: with unfailing punctuality the south-west monsoon sets in about the middle of June and lasts till the end of September. And does the world hold, I wonder, another phenomenon so striking as this annual miracle of the monsoon? June comes in with fine weather: on the plains below the sky is brass and the ground iron. Not a sign betrays the wondrous store of life-giving water Nature has hoarded up, to be poured out during the next three months on the thirsty land. Yet with absolute confidence the planter and the ryot put the finishing touch to their preparations for the planting season; on every side everyone makes ready for the advent of the monsoon. Then suddenly, silently, in the dead of night, *madidis Notus evolat alis*, and you wake to find the whole country shrouded in a curtain of mist, and the rain coming down in the long, relentless spikes the dweller on the West Coast knows so well and welcomes so heartily. The "monsoon has burst." For a fortnight perhaps, day and night without intermission, the rain descends in a steady sheet, and the wind

holds high revel. Every little rill becomes a foaming torrent, and the gaunt forest droops under the assault of these mighty forces. Then, as suddenly as it came, the pall of mist rises and disappears : the sun shines out of a sky of unclouded blue : and all Nature smiles and sparkles after the vivifying deluge, truly a Giantess refreshed. But the first "break" is of short duration, and soon the country is once more in the grip of the rain. And so for three months the weather alternates between deluge and shine, the breaks getting longer and the rain lighter as the monsoon nears its close. About the end of September its exit is marked by a spell of fine weather, when the north-east monsoon is ushered in by thunderstorms. This latter monsoon in this part of the country only gives occasional heavy showers. Even on the Coromandel Coast and in mid-India, the north-east monsoon is always fitful, and sometimes fails altogether, the failure bringing famine and misery unspeakable to the tracts dependent on these rains. But the grand south-west monsoon, immutable as Fate, though it may vary in intensity, has through all the centuries pursued its majestic march with inflexible regularity, and in the favoured strip of country within its influence, the Garden of India, famine is absolutely unknown.

Though South-East Wynaad does not contain any rivers of importance, the country is very well watered. The largest stream is the Pandi, which, coming from the Ouchterlony Valley, flows down a gorge parallel with the Karkur Ghat; thence, as the Ponnupuzha, it empties into the Kurrumpuzha on the Malabar plain. The Marpanmadi ridge, which cuts South-East Wynaad in half, is the chief water-parting. The eastern face of the ridge has few streams; but on the western

face almost every valley is the nursery of a perennial stream, many of which assume considerable proportions during the south-west monsoon. The cliffs which drop down from the Nilgiri plateau are seamed with waterfalls ; and from any vantage point which affords a view of these sheer precipices, such as the Nadghani bungalow, these falls are a grand sight in the rains. The secondary drop, from the Wynaad plateau to the level ground of Malabar, is not nearly so abrupt as that from the Nilgiris, and hence the streams run down the Wynaad Ghats without forming waterfalls in their course.

Though, viewed from any point on the edge of the Nilgiri plateau, South-East Wynaad appears a dead level, the whole country is really a succession of low hills which often form perfect cones, a formation which can be well seen in the neighbourhood of Devala and Nadghani. I hazard the conjecture that the simultaneous upheaval of the Vellarimallais on the west and the Nilgiris on the east crushed the intervening country into its present form of a series of low, rounded hills. The only part of the district which rises high enough to be called a range is the Marpanmadi ridge alluded to above. This springs up abruptly about the centre of the *taluk*, and running north and south splits the plateau in half. The chief elevations in this range are Rockwood or Marpanmadi North Peak (5,014 feet, the highest hill in the district) ; Needlerock, separated from Rockwood by a narrow tongue of grassland, and only slightly lower : the curious wall of Dharwar rocks which rises just above the old Dingley Dell Estate ; and Hadiabetta Peak (3,788 feet) at the southern extremity of the range. Looking east from my bungalow, a wonderful view

of Rockwood and Needlerock Peaks is obtained. They tower up into the sky, huge bare cones of gneiss, the northern faces of both being precipices of precisely similar shape ; and to make the similitude more striking, below each cliff nestles a lovely little *shola*. So alike are the two peaks from my side of the ridge, that the natives call them the Twins or Sisters. On the south, however, the likeness ends, Rockwood sloping down in a grass-covered descent to the narrow ridge which divides it from Needlerock, while the latter runs down in a sharp rocky knife-edge, shaped like the dorsal fin of a shark. This curious cap of rock makes Needlerock a conspicuous landmark from any part of South-East Wynaad. Hadiabetta is a sugar-loaf of grass, save on its north face, to which the Ghat forest (which ends here) clings up to the very summit.

I have seen it remarked somewhere that "blessed is the country without a history," and if this be true, then the Wynaad is blessed indeed. Most tracts in Southern India have been the scene of successive struggles for sovereignty : kings have come and kings have gone, leaving behind them monuments and writings and inscriptions which, when pieced together by the modern epigraphist, yield a more or less accurate history of the past. But the Wynaad is not of these. Isolated by the mighty barrier of the Ghats ; encircled by a belt of malarious jungle—to traverse which was held, even in quite recent times, to be merely courting death ; itself a plateau clothed with primeval forest inhabited only (as Ferreira wrote) by elephants and tigers, and by savage junglemen who were accounted only one degree less dangerous than the wild beasts, it offered no attraction to the invader. Hence there are no relics of the past to tell its story.



NEEDLEROCK FROM MY BUNGALOW

Photo. by the Author

That at one period South-East Wynaad had a resident Rajah or Chief, is evident from the remains of a palace or fort on the eastern slope of Rockwood Peak. The present Woodbriar bungalow is built in part of bricks taken from this old ruin. Over the crest, on my side of the ridge, the top of a conical hill has been terraced, and this presumably was the site of a large village connected with the *kovilagom* on the Woodbriar property. Across the valley, at the summit of the hill above Emerald Estate, there are also traces of a levelled site and a ditch, where perhaps another fort once stood. But these slight remains of a former occupation afford not the slenderest clue as to who these men were, when or whence they came, when or why they departed. Save these few building sites, the only evidences that this part of the country was once inhabited by a bygone race are the old gold workings round Devala and Pundalur. Here, again, there is nothing to serve as an indication of the age of these workings or who the workers were; but the Kurumbas of to-day aver that the ancient searchers after gold were their ancestors, and colour is given to this tradition by the fact that they are now the only people who are expert in the use of the gold-washing board. The whole country round these villages is riddled with old gold workings, some of which are of great size and evince a considerable degree of mining skill. For the most part, however, the old men merely worked along the outcrops of the reefs, especially of the leaders, and were stopped by water at a short distance below surface.

But a few feeble rays of light are thrown on the Cimmerian darkness which enshrouds the early history of the Wynaad by inscriptions found in the Mysore

country—the fertile land lying to the north, which figures so prominently in the history of Southern India. The first of these (about 930 A.D., according to Mr. Rice) tells how Rachamulla and Butuga, sons of the Ganga king Ereyappa of Mysore, fought for the Byalnad¹ (the “swamp-land”) on the death of their father, how Rachamulla was killed, and Butuga became king of the country of the Wynaad. Somewhere between this date and the beginning of the twelfth century, the Ganga king was driven out by the Kadambas, the rulers whose capital was at Banavasi in North Kanara. From the Kadambas who then held sway, the Kurumbas now inhabiting the Wynaad are doubtless descended; and in support of the assumption that they were once a ruling race may be cited the curious fact that the headmen of the various clans or families in South-East Wynaad still regard the country as portioned out amongst themselves. If Kurumbas belonging to one *mutt* (village) seek service in a part of the country over which the headman of another *mutt* rules, the permission of the latter must first be obtained. I have known many disputes arise from a breach of this unwritten law.

The sway of the Kadambas over the Wynaad does not appear to have lasted very long, for the Hoysala king Vishnuvadhana (1104 to 1141 A.D.) is said to have conquered the country “with a frown.” This dynasty ruled at Dwarasamudram in Mysore, now known as Halebid. In 1310 the Hoysala king was conquered by the Muhammedans; but whether the Wynaad ever came directly under Mussulman rule

¹ The name Wynaad is probably a corruption or contraction of the ancient name Byalnad or Vyalnad, *vyaḷ* signifying “swamp.”

is extremely doubtful. After the downfall of the Hoysalas, the Nilgiri plateau passed under the sway of Madhava Dannayaka, son of the Hoysala Dewan, and it is possible that the Wynaad plateau also formed part of his territory. His capital was at Tirkanambi in Mysore.

The Delhi Muhammedans were in turn overthrown by the most famous line in the early history of Southern India, the Hindu dynasty of Vijayanagar, who ruled from Hampi; and at the beginning of the sixteenth century the Wynaad passed under their dominion. In 1565 was fought the battle of Talikota, at which the Vijayanagar king was defeated by the Muhammedan kings of the Dekkan, a battle which marks an epoch in the history of Southern India. Thenceforward the power of this great dynasty rapidly declined, and in 1610 Rajah Wodeyar, a vassal of Vijayanagar, seized Seringapatam. In 1612 he was formally installed as ruler of that tract and Umattur by the Vijayanagar king, who was too weak to dispute his authority; and the Wynaad came under Mysore rule.

Then the pall of darkness once more shuts down on the Wynaad for a century and a half. When it lifts at the close of the eighteenth century, just prior to the acquisition of the country by the English, we find a Malabar chief, the Kottayam Rajah, in possession, so that in the interval the Wynaad must have been transferred from Mysore to Malabar—when or how, I have not been able to determine. The territory held by the Kottayam family, comprising the Wynaad and the greater part of the Kottayam *taluk*, was portioned out amongst the different members, these units forming parts of a compact whole. The Kurumbranad Rajah was recognised as the head of the family; but

the most notorious member was Kerala Varma Rajah, head of the Padinnara *kovilagam* or western branch, who later came into such prominence as the "Pychy rebel," a name derived from the Pazhassi or Pychy *amsham* of the Kottayam *talug*, in which his *kovilagam* or palace was situated. Tippu Sultan, who had succeeded his father Haider Ali in 1782 (the latter having usurped the throne of Mysore in 1760), seized the Wynaad from the Kottayam Rajah in 1787. Kerala Varma, in whose division as head of the Padinnara *kovilagam* the Wynaad was included, refused to recognise the surrender of this tract to Tippu, and till 1790 he was engaged in desultory warfare with that monarch.

In 1790 the second Mysore war between the East India Company and Tippu broke out, and Kerala Varma was promised by the Company's agent at Tellicherry that "the Company would do everything in their power to render him independent of Tippu" if "he would enter heartily into the war against Tippu Sultan and act rigorously against him." This war closed in 1792, the Company holding that amongst the territory ceded by Tippu, Malabar and the Wynaad were included, and these tracts were placed under the Government of Bombay. That Government at once restored Kerala Varma to his former possessions; but he soon got into trouble by refusing to come to terms regarding the revenue settlement of the tract he held, and a little later he forced the Government to take active steps against him by impaling some Mappillas alive. He fled to Wynaad, but was pardoned on a promise to amend, the head of the family giving a bond for his future good conduct. His promise of reform was, however, of the piecrust order, for very

soon after his return he began to intrigue with Tippu and to interfere with the collection of the pepper revenue; and in 1796 he was proclaimed. In the operations which followed Kerala Varma received support in the shape of men and ammunition from Tippu, who declined to recognise the inclusion of Wynaad in the territory he had ceded to the Company at the end of the last war; and the opening stages of the campaign went decidedly against the English. Later, however, both the Governor and Commander-in-Chief of Bombay came to Malabar: Kerala Varma's headquarters were captured; and in 1797 he was once more pardoned, and given a pension of Rs. 8000 a year. In the following year the Governor-General accepted Tippu's view, and declared by proclamation that the Wynaad had not been ceded to the Company by the treaty of 1792. In 1799, however, the long duel with Tippu ended with his death at the fall of Seringapatam. By the treaty of that name Tippu's territories were divided between the Company and its allies; and by a curious blunder the Wynaad was ceded to the Company under one name, and to the Hindu king, who had been restored to the sovereignty of Mysore, under another. From June 1st, 1800, the Wynaad came under the Government of Madras; and by a supplementary treaty dated December 29th, 1803, the mistake was rectified, and the Wynaad formally made over to the East India Company.

But Kerala Varma, the stormy petrel of the Wynaad, was not yet done with. He maintained that the country had always been the property of his family, and that consequently its cession by the Treaty of Seringapatam was invalid; and once more he took up arms against the English. Colonel Wellesley (the

future Duke of Wellington), was placed in charge of the military operations; but for some time, being elsewhere engaged, he was not able to act vigorously against the "Pychy rebel." At the end of 1800, however, systematic operations were begun, and in a few months Kerala Varma was driven into the jungles of the Wynaad. For five more years he successfully eluded capture, and at last, in November, 1805, he was killed, fighting to the end. The Collector of that day sums up this noted character thus:—"For a series of years he has kept this province in a state of confusion, and agitated it with the most intricate and perplexing warfare in which the best of officers and of troops have at various times been engaged, to the melancholy loss of many valuable lives and the expenditure of as many lakhs of rupees."

With the death of Kerala Varma the Wynaad relapsed into its wonted state of isolation, and slept peacefully for half a century. Its next awakening came with the introduction of the coffee plant.

The plant was in all probability first introduced into Southern India at the close of the eighteenth century by Arab traders from the neighbourhood of Mocha. The earliest notice of its cultivation is found in a letter from that wonderful man, the Abbé Dubois, to Colonel Miller, Resident of Mysore, dated September 15th, 1805. The Resident had applied to the Abbé for a man from the West Coast acquainted with the cultivation of coffee, and in reply the Abbé says he "never understood that the plant grew in any part of the hills situated in the west of Mysore." He adds: "About ten years ago, when I was in the Baramahal, Colonel Read, Collector in that part of the country, undertook to make a large plantation at Tripatur by the

means of an American he sent for from the Coast." The plantation was made, "but the Manager proving a man without conduct, Colonel Read was soon disgusted with his services and dismissed him." And the Colonel, "perceiving besides that the produce of that kind of cultivation would in no case equal the expenses necessary in that part of the country, the plantation was suffered to perish." From this correspondence it would appear that at the date of the Abbé's letter the plant was grown to some extent on the West Coast, but that the cultivation had made no great strides in Mysore, although long before that date the plant had undoubtedly been introduced into the Province. There is a tradition, probably true, "that the coffee plant was introduced into Mysore by a Mahometan pilgrim named Baba Buden, who came and took up his abode in the uninhabited hills in the Nugger Division, named after him, and where he established a college, which still exists, endowed by Government, It is said that he brought seven coffee berries from Mocha, which he planted near to his hermitage, about which there are now to be seen some very old coffee trees. The coffee plant has been known there from time immemorial, but the earliest official account of it is in 1822 when the revenue was under contract" (Drury's *Useful Plants of India*).

Dr. Buchanan mentions having seen thriving coffee trees near Tellicherry in 1801, and Colonel Wilks speaks of a garden in the Baba Buden hills attached to a mosque, the seed having originally come from Mocha.

The first coffee estate in Ceylon was opened by Sir Edward Barnes in 1822, and in the following year coffee planting was started in Bengal by Dr. Wallich and Mr. Gordon. The history of this cultivation I

cannot trace ; but as coffee never became an industry in Bengal, and is non-existent there now, it is clear that these early efforts to introduce it proved a failure.

The introduction of coffee into Wynaad was apparently due to Mr. Brown of Anjarakandi, who started planting in North Wynaad in 1828. This was the nucleus of the many fine estates which once flourished near Manantavadi. About the same time the first estates were opened by Europeans on the Baba Budens in Mysore, and a few years later planting was begun near Manjarabad. By 1839 the industry had made fair progress in Wynaad ; and in or about that year the earliest estates were opened on the eastern slopes of the Nilgiris. From this date onwards extension was rapid.

About 1850 Mr. James Ouchterlony started coffee planting in the magnificent valley which bears his name to the south of Gudalur—a tract which probably combines all the conditions essential to success in this branch of cultivation to a greater degree than any other tract of equal extent in southern India. At that period south-east Wynaad was a wild stretch of forest country, inhabited only by the jungle tribes, and Mr. Ouchterlony found pioneering uphill work. In a letter to Government, written in 1860, he thus describes his early struggles :—“ I was equally a pioneer in the experiment of coffee planting on the Nilgiri slope near the Gudalur pass, where I first commenced the cultivation. In a limited degree many of the features of a new colony were then presented ; there was no resident population within any accessible distance : no articles of food to be had near the spot : we had no roads (properly so called) : no police : and no law save at courts too distant to be reached.

Labour and food had, in fact, to be imported from a remote district, the first being only obtained with difficulty, and then often scared away by the solitariness of the spot and an undefined dread of evil in the minds of the coolies. Doubts of success were even engendered in the minds of most of those who had embarked with me in the enterprise, and who necessarily withdrew from it. But at length a bright issue attended the efforts, and I will only say, let the changed aspect of the country around in respect of cultivation tell what the effect has been on the general interests."

Somewhere in the fifties of the last century the first estates were opened in South-East Wynaad—the same initial mistake being made here as in other coffee districts, *viz.* the selection of land in the heavy forest on the crest of the Ghats, where, owing to the tremendous rainfall during the south-west monsoon, and their exposed position, many properties succumbed. In such situations the chief foes of coffee, the black bug (*Lecanium coffæ*), the borer (*Xylotrechus quadripes*) and leaf disease (*Hemeleia vastatrix*), cannot be fought successfully. Further, the land being steep and the weeding having been done with that implement of torture the *mamotie*, all the surface soil was in a very short time washed down to the valleys below, so that those Ghat estates which had withstood the attacks of the enemies named above were soon in a parlous condition, with annual yields rapidly approaching the vanishing point. Ten years or so later, estates were opened in the belt of lighter deciduous jungle between the Ghats and the foot of the Nilgiri plateau. Here the soil is richer, the land more sheltered, and the rainfall far less than on the Ghats ; and at the present

time, the only coffee estates in South-East Wynaad are clustered round Nellakota.

Above I have mentioned the chief natural enemies of coffee : perhaps a more potent foe was the disastrous gold boom that convulsed South-East Wynaad in the early 'eighties. In pre-mining days Devala, Pundalur, and Cherambadi were all large planting centres. Even before the advent of the gold companies, some of the estates on the Ghats were on the verge of extinction, while others had seen their best days ; but there were still many fine properties in existence, most of which were acquired by the mining companies. Starting from Devala, the Harewood, Kintail, Strathearn and Maryland Estates were bought by the Devala-Moyar Company ; Richmond, Downham, and Elisabeth, by the South-East Wynaad Company ; Kingston by a company of that name which never got as far as actual mining ; Trevelyan, Limerick, and Dingley Dell by the Trevelyan Company ; Needlerock by the Needle-rock Company. To the south, Perseverance was bought by the Company of similar name ; Sheardale, Hamsluck, Hamslade, and Adelphi were acquired by a company of whose history I am ignorant ; Balcarres, Dunbar, Henrietta, Phoenix, Lytton, Rosedell, and St. Thome were bought by the Indian Consolidated Company ; Glenrock, Adeline, Caroline, and Yellaman by the Glenrock Company. At Cherambadi, the Wentworth Gold Mining Company acquired the Llewellyn, Chanthanam, Kanambyle, Barbrick, Cherambadi, and Wentworth Estates. Most of these properties were practically abandoned from the time of their transfer to the various gold companies, who—afflicted with *auri sacra fames*—took no heed of their fine coffee. On others, a pretence of cultivation was

maintained for some little time, and then the coffee was shelved. The Wentworth Company, probably recognising the fact that they were mining for gold in pegmatite (having apparently mistaken the masses of granular saccharoid quartz enclosed in the pegmatite veins for reef quartz) launched out into cinchona cultivation on a large scale, only to find, when the trees were mature, that the price of bark had dropped to a figure which made shipment unremunerative ; and the estate was then abandoned. As a result of this wholesale neglect, the weeds soon overtopped the coffee, and as these became dry as tinder in the hot weather, fire got in when the hills were burnt according to the annual custom, and the cultivation was so effectually destroyed that over an area of possibly ten thousand acres, once covered with fields of glossy, well kept coffee, not one single tree remains. For mile after mile, nothing but an interminable sea of *dhubbay* grass marks the site of what were smiling estates—the Ghat forest from the Sulimallai ridge to Henrietta and onwards to Phœnix and Glenrock sharply defining the limit of the old cultivation on the south. Here and there, on some commanding hilltop, a lichen-covered chimney rises above the tangle of lantana—sole relics of the bungalows occupied by the cheery, hospitable planters in days of yore, when coffee was king. I greatly doubt whether anywhere else in India a scene of such utter desolation could be found as is presented by this part of South-East Wynaad—this wilderness made by the abortive search after gold.

Somewhere about the late 'seventies came the cinchona boom. Quinine was then selling in London at twelve shillings per ounce, and planters rushed headlong into the cultivation of cinchona. Those few who

had taken time by the forelock and made large nurseries, reaped small fortunes by the sale of plants. The variety chiefly grown in Wynaad was *succirubra*, and it thrived magnificently. *Ledgeriana*, a far richer species, was also tried on a considerable scale, but it never made a really good tree. The men who got in early saw their banking accounts go up by leaps and bounds. A friend of mine cleared £5,000 in one year from only a small acreage of *succirubra*. But the boom was of short duration. In Ceylon, the coffee had been wiped out by leaf disease, and the planters had gone in for cinchona on a huge scale in the effort to retrieve themselves. All Java was cinchona. With over-production came the inevitable drop in price, and it came with startling suddenness. Twelve shillings per ounce in 1878, ten shillings in 1882, seven shillings in 1884, two shillings in 1888, down tumbled prices headlong; and before the seven years which a cinchona requires to mature had elapsed, for most men the cultivation had ceased to be profitable. Wynaad gave up, so did Ceylon; but Java, where the industry was fostered in every way by the Government, and every effort made, not only to increase the yield, but to restrict cultivation to trees rich in the alkaloids, has persisted; and to-day, with her fine plantations giving bark with a thirteen or fourteen per cent. analysis she rules the market and makes a fine thing of cinchona cultivation, though the present price of the drug is only 7½d. per ounce. The large cinchona estates in Wynaad shared the same fate as coffee when the gold mines were in the ascendant. They were allowed to get high in weeds, fire crept in, and completed their destruction. In many cases, in the rush to plant, fine coffee estates had been interplanted with cinchona. When the

trees grew up, it was found that they made too dense a shade for coffee, and also that the latter sickened, as the ground could not support both products. Cinchona being by this time valueless, planters were now as eager to get rid of the trees as they had been before to establish them, and on mixed estates the cinchona was ruthlessly uprooted. In 1901-2 came a small boom in *succirubra* bark, caused apparently by a demand for cinchonidine (the *succirubra* variety, though comparatively poor in quinine, being rich in the other alkaloids), and this finished the history of cinchona in Wynaad. Every patch that had been lucky enough to survive was dug up for the root bark; and to-day there are probably not a hundred acres under cinchona in all South-East Wynaad. As I write, one estate of six hundred acres rises up before me. It was opened in grand forest, and is now merely a sea of *dhubbay* grass. This is burnt off yearly, and in April, when the hills are covered with a fresh crop of grass after the spring showers, the place forms a veritable paradise for bison, lying as it does remote from all other estates and surrounded on three sides by dense forest. More than one bison have I intercepted on his way up to this Elysium; so I, at least, have no reason to complain because the cinchona has "gone out."

The tea plant was introduced on to the Nilgiris as early as 1833. In that year Dr. Christie obtained some plants from China. These were distributed over the hills; but as South-East Wynaad was at that time an unknown quantity, the history of tea in that district must date from a much later period. South Wynaad, where leaf disease and borer wrought almost as much havoc with coffee as in Ceylon, came into pro minenc

as a tea district towards the end of the 'eighties, after the collapse of cinchona. I think I am right in saying that Perindotti was the first tea estate opened in that district. Tea does well there, and recently many of the best properties have been acquired by two large English companies. In my own district of Nellakota, small patches of tea—China for the most part—were planted almost contemporaneously with the opening of the coffee estates. I have a small field on my estate which dates back to about 1877. But the first large estate was only opened about eight years ago, and its remarkable success has given tea-cultivation a great impetus in Nellakota. It has proved so conclusively that the soil, climate, and rainfall of our district are admirably adapted for tea, that the cultivation of this crop is being rapidly extended, and the day is not far distant when Nellakota will take its place among the best tea districts of India.

Over-production has, of course, done its deadly work with tea as with all other tropical products. In 1869 an Agricultural Exhibition was held at Ootacamund, at which eighteen samples of Nilgiri tea were shown. Some of these exhibits were sent to London by Government for report, and were valued at prices ranging from 1s. 4d. to 6s. per lb. The Nilgiri planter who in these days obtained the first named price for even his best tea would reckon himself fortunate. In the case of tea, however, the demand has kept pace with the increasing supply; and though the price has dropped to far below the level of thirty years ago, a good tea estate is a most profitable concern, and gives every hope of continuing so indefinitely.

Rubber has only lately come to the front. The first notice I can find of rubber in South India is the

arrival, in 1878, of a few Ceara plants (*Manihot Glaziovii*), sent out from Kew, at the Government teak plantation at Nilambur, in the Malabar district. Whether these are in existence now, I do not know ; but in and round the village of Nilambur Ceara trees are not uncommon, and possibly these may be the offspring of the ones first planted. In the following year a few Para plants (*Hevea Brasiliensis*), sent over from the Botanic Gardens at Peradeniya, Ceylon, were put out in the same teak plantation. These stand in poor soil, chiefly composed of laterite, but are now fine trees. A few years later several Wynaad planters opened small plots of Ceara by way of experiment ; but no rubber was planted on a commercial scale. In places, though utterly neglected, these trees still flourish—there is a good sized plot, perhaps four acres, near an estate I own, named Gadbrook, planted by the late Mr. W. Hamilton. It was about ten years ago that the great boom in rubber in the East set in. Starting in the Federated Malay States, it soon leapt across the bay to Ceylon. After an interval, it reached South India, and rubber has been planted in Nilgiri-Wynaad, the Anamallais, the Shevaroyes, and below the Ghats in Malabar, Travancore, and Cochin. By far the largest area is under Para, but *Castilloa elastica* has also been tried.

Many other minor products, the chief being pepper (*Piper nigrum*), are cultivated—in fact the Wynaad, with its diversity of soil, climate, elevation and rainfall, is eminently suited for almost every product that can be grown in the tropics ; but these I pass over without detailed comment, for I must bring to a close this brief sketch of the Wynaad.

The Wynaad! What magic the name holds for the

man who, like myself, has spent the best years of his life in that grand country! What a glorious vision it conjures up! A virgin land where nature is seen in all her changing moods, stern and smiling, grave and gay, by turns. A land of swelling hill and verdant jungle, over which the stark Kundahs keep watch and ward. Then, westwards, the noble chain of the Ghats, clothed in that mighty forest where broods the Eternal Silence, unbroken since the day when the Spirit of God moved upon the face of the waters, and, having bid the newborn earth bring forth grass, the herb yielding seed and the fruit tree yielding fruit after his kind, He saw that it was good. A land which holds no place for the trifler whose soul is set on "flaming London, fevered Paris"; but to the man who is content to let the great Earth Mother fold him to her ample bosom and whisper her secrets into his ear, an Elysium indeed.

"So send me far from Lombard Street, and write me down a failure,

Put a little in my purse, and leave me free;

Say: 'He turned from Fortune's offering, to follow up a pale lure,
He is one of us no longer—let him be.'

I am one of you no longer: by the trails my feet have broken,

By the forest gods, who claimed me long ago,

By the hermit life I'm steeped in—yea, the final word is spoken,

I am signed and sealed to Nature. . . . Be it so."

THE ELEPHANT

Scientific name.—*Elephas maximus*.

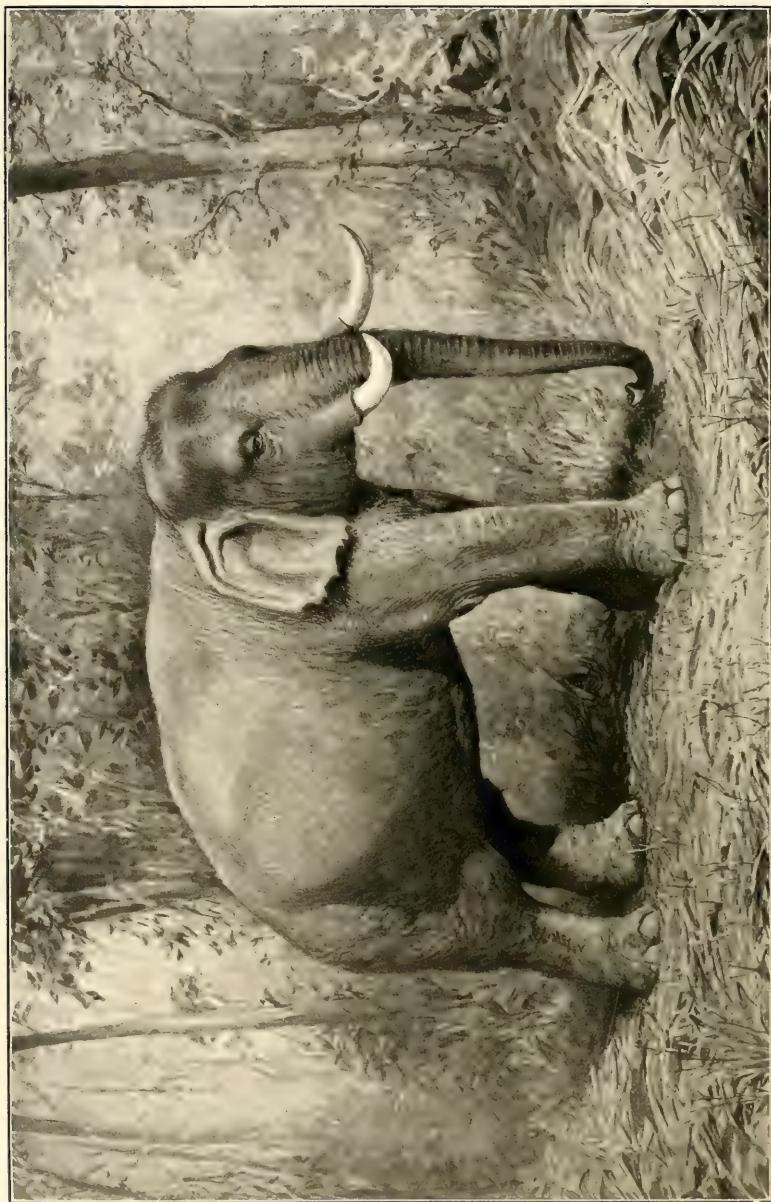
Tamil name.—Áné (pronounced Ah-nay).

Kanarese name.—Áné.

Kurumba name.—Áné.

Nayaka name.—Áné.

Malayalam name.—Áné.



Drawn by J. Macfarlane

THE INDIAN ELEPHANT

THE ELEPHANT.

“Behold now Behemoth.”

MOST sportsmen will, I fancy, agree with me that the old scientific name, *Elephas indicus*, was a far more appropriate appellation for the Indian elephant than that by which he is now called ; for though the purists would have us believe that the elephants of India, of Ceylon, of Sumatra, and perhaps of Siam and of the Malay States, are all different species, and that local races occur in the Peninsula itself, the elephants now extant fall naturally into two groups, the Asiatic or Indian, and the African (*Elephas africanus*). But Blanford has chosen to follow the prevailing fashion of “priority in nomenclature,” and to call the Indian elephant *maximus* because that name was bestowed on him by old Linnæus in the eighteenth century ; and so, though he is in reality a smaller animal than his African cousin, we must perforce drop the name which fitted like a glove, and dub him *maximus* as well.

There has been as much heated discussion over the twelve foot elephant as over the twelve foot tiger. Blanford says : “Adult males do not as a rule exceed nine feet, females eight feet in height, but a male has been measured by Sanderson as much as ten feet seven and a half inches.” This latter statement would appear to be an error, for Sanderson (undoubtedly the pre-

eminent authority on elephants) himself writes : " Out of some hundreds of tame and newly caught elephants which I have seen in the south of India and in Bengal, also from Burma and different parts of India, and of which I carefully measured all the largest individuals, I have not seen one ten feet in vertical height at the shoulder. The largest was an elephant in the Madras Commissariat stud at Hoonsoor, which measured nine feet ten inches." Again : " There is little doubt that there is not an elephant ten feet at the shoulder in India." Elephants standing far higher than this have, however, been recorded. Burke gives the following, all over ten feet :—

ft.	in.	
10	7	mentioned in Sterndale's Mammalia.
10	7	alleged height of the Bulrampur fighting elephant.
10	5	shot by Lieut. S. H. Charrington in Coorg.
10	4	shot by Mr. J. N. Clough in the Kyaito District, Burma.
10	1	shot by General A. A. Kinloch.

All these fall far short of Sir Victor Brooke's celebrated tusker, the height of which has been recorded by " Hawkeye " as eleven feet. He (General R. Hamilton) writes : " The large elephant killed by Sir Victor Brooke, with a tusk six feet outside the jaw, which as he walked appeared nearly to touch the ground, was eleven feet." This is a definite statement ; but we know that in bygone days sportsmen were somewhat lax in their methods of measuring big game, and it is possible that General Hamilton is mistaken. I say this because, in the account of the chase of this elephant from Sir Victor Brooke's own pen which appears in Sanderson's book (though unfortunately no mention is made of the height of the elephant), the following sentence scarcely supports the phenomenal height given by General Hamilton : " But it was not

merely the stature of the noble beast which astonished us, for that, though great, could not be considered unrivalled." Blanford gives the height of the well-known skeleton in the Indian Museum at Calcutta as eleven feet three inches, and adds, "so the animal when living, if the skeleton is correctly mounted, must have been nearly twelve feet high."

In the Wynaad forests, owing perhaps to the abundance of suitable food throughout the year, elephants run large. I have seen many grand tuskers, both wild and tame, and several of the latter I have had opportunities of measuring. The largest stood nine feet seven inches at the shoulder, and was the property of a local landowner. Some of the wild tuskers appeared to me to be even higher; but I freely admit that estimates of size are valueless, especially as an animal seen in its wild state conveys an entirely false impression as to the size of its body or head. Every sportsman who reads this will recall how wofully he was disappointed by the discrepancy between, say, his estimate of a sambur stag's head when first seen on a hilltop at early dawn, and the length revealed by the inexorable tape when he was laid low.

For long the right tusk of Sir Victor Brooke's elephant (the left tusk was broken off about a foot outside the gum) was regarded as a record for India, and was spoken and written of as phenomenal. Sanderson gives the following measurements of these tusks, obtained from Sir Victor himself:—

				Right. ft. in.	Left. ft. in.
Total length, outside curve	...	...	...	8 0	3 3
Length outside socket, outside curve	...	...	...	5 9	1 2
Length inside socket, outside curve	...	...	...	2 3	2 1
Circumference	...	...	...	1 4'9	1 8
Weight	...	...	...	90 lbs.	49 lbs.

Judging from the circumference of the left tusk, it would have matched its fellow had it not been injured. I would note here that the girth of the right tusk as given by Sanderson strikes one as curious, for it is scarcely possible to measure to tenths of an inch. In view of the girth of the left tusk, it seems probable that the figures as given—1' 4'9"—are a mistake for one foot nine inches.

But these, grand as they are, are entirely eclipsed in length by two other pairs mentioned by Burke, who writes :—"the longest pair of tusks on record is thus described in the Journal of the Bombay Natural History Society—length nine feet ten and a half inches and nine feet six inches ; girth fifteen and three-quarter inches and fifteen and a half inches ; a very long and slender pair. In the same publication Captain S. S. Flower reports a pair length eight feet three inches and eight feet four inches ; girth fourteen and a half inches each." In girth and weight, however, Sir Victor's tusker is still *facile princeps*, for I can find no record of any other tusk even approaching a girth of twenty inches, or a weight of 90 lb.

On the subject of record weight Burke writes :—"Mr. C. S. Rogers, writing from Mogok in 1897, gives the length of a pair found in the Ruby Mines District (together with the remains of the elephant) as—right tusk six feet two inches, left six feet five inches ; weight 67 lb. and 73 lb. ; girth one foot five and a-half inches ; the pair weighed 140 lb. and are thus heavier than the heaviest pair recorded by Sanderson"—the allusion being to Sir Victor Brooke's elephant. But it is obviously unfair to balance a pair of perfect tusks against an imperfect pair, and then claim superiority for the former. It will be seen that

neither tusk of the Burma elephant had anything like the weight of the sound tusk of Sir Victor's elephant ; while the girth of the stump of the broken tusk in the latter head justifies the conclusion that had it also been perfect, the pair would have weighed at least 180 lb. But speculation apart, I fancy the right tusk with a weight of 90 lb., and the left with a girth of twenty inches, will stand as records for all time.¹

The tusks in an elephant are not masses of ivory distinct from his dentition, but merely a pair of phenomenally developed incisor teeth, firmly fixed in bony sheaths, which run up the head as far as the aperture of the nasal cavity. They are preceded in the young elephant by milk teeth or tusks, which are shed early : the true tusks then appear, solid masses of dentine, which increase with the growth of the animal till they reach their full development. At what age this occurs I am not prepared to say. I have seen it stated that tusks increase in size as long as the owner lives ; but it seems to me there must come a time when they have reached their maximum size, growth then ceasing entirely. Were this not the case, we should find very old males with tusks far longer than they now, as a rule, possess ; for though the growth of tusks is doubtless slow, elephants under suitable conditions live to a patriarchal age. Sanderson expresses the opinion that "the elephant attains at least to one hundred and fifty years." Think of the proportions a tusk would reach if it grew unceasingly for a century and a half !

Tusks, as said above, correspond to incisors, and in living forms are only found in the upper jaw. The

¹ There is an unsupported tradition that "a tusk from Gorakhpúr weighed 100 lbs."

rest of the dentition is most singular. There are no canines either above or below, but each jaw is furnished with six pairs of molars. These are formed of transverse perpendicular plates of dentine, closely joined together by cement, which increase in number from front to back, the first molar containing four such plates, and the last as many as twenty-four. Not more than one, or parts of two, of the molars on right and left sides of both jaws are in use at one time : as these are worn away by the ordinary processes of attrition they are pushed out in front by the other molars, which move forward successively into their working places from the back of the jaw. A very old elephant would therefore have only a single pair of molars left in each jaw, and would die from starvation when these at length ceased to fulfil their functions.

A striking instance of the result of interference with the balance of Nature may be mentioned here. In the wild state, an elephant's teeth are worn away not merely by the mastication of his food, but by the grit he takes into his mouth with that food ; and this abrasion is precisely counterbalanced by the growth of the succeeding tooth. But in captivity, an elephant's food is comparatively clean, with the result that the teeth do not wear sufficiently fast to make room for the development of the molars behind. Hence, in tame animals, the plates composing the teeth are frequently piled one over the other.

In the Peninsula, by far the greater number of males carry tusks—in fact a *mukna* or tuskless male is a rarity. Sanderson notes that out of fifty-one males he captured, only five were *muknas*, and I should say, speaking generally, that even this ten per cent. average is high. In Ceylon, on the other hand, a tusker is the

exception. I have seen several theories advanced to account for this striking difference, the latest being that the *mukna* is a variety indigenous to Ceylon, the occasional tuskers found in that island being the descendants of imported Indian elephants run wild. But how does this theory fit in with the presence of *muknas* in Indian herds? If the tuskless male is a variety confined to Ceylon, then we must reverse the proposition, and say that Indian *muknas* are the descendants of Ceylon elephants imported into India and now run wild, which seems an absurdity. Again, if the *mukna* is a distinct variety, why should he produce a *mukna* when mated with a female of the "tusk" variety? Rather, by all the laws of cross-breeding, we should expect a hybrid; yet none such exist. The only hypothesis which would satisfactorily separate tuskers and *muknas* into two distinct species is that both males and females of the tusk or Indian variety were imported into Ceylon, and males and females of the *mukna* or Ceylon variety were imported into India, and that ever since such importations were made tusk males have kept to tusk females and *mukna* males to *mukna* females. This supposition involves such a tissue of improbabilities that it is not worth while pursuing it further. There can, I think, be no doubt that only one species of elephant exists both in India and Ceylon, and that, as Sanderson puts it, "the absence of tusks is merely an accidental circumstance, as the want of beard or whiskers in a man."

Sanderson dissipates the common belief that *muknas* are generally vicious ill-tempered animals. He also points out that, owing to the bullying they experience from the tuskers in a herd, which they must perforce

accept meekly, they are often timid. Possibly this want of courage has been mistaken for vice.

The female is equipped with short tusks or tushes in the upper jaw, which are usually broken at an early age. I know, however, of at least one case in which they have been retained till late in life. This elephant, a great "pal" of mine, is the most docile, sweet-tempered creature I have ever met. Her owner puts her age at ninety years, and her tushes are still perfect.

In colour, the elephant is a uniform black tinged with slaty grey. His skin is almost devoid of hair, but the tail has a few coarse hairs at the tip. Often the forehead and ears are mottled with flesh-coloured patches, and occasionally similar blotches occur on the neck. These marks are prized by native owners in this part of the country, but to me they are repulsive, giving the elephant possessing them much the appearance of a man suffering from leucoderma. The white elephants of Further India are celebrated in story: possibly they exist in fact; but I have never heard of a white elephant in the Peninsula. Blanford merely notes that "white elephants are albinos." Usually there are five hoofs or nails on the forefoot, and four on the hindfoot. The trunk is a wonderful organ. In reality a phenomenally developed nose, it consists of a flexible tube of sub-conical form, enclosing two other tubes divided by a septum. At the tip, on the outside, is a finger-like process, which gives the trunk its extreme sensitiveness, and enables an elephant to pick up anything down to the proverbial pin. The peculiar gait is due to the formation of the legs, which differs radically from that of any other quadruped. The bones are set almost in a direct line,

while the humerus in the foreleg and the femur in the hindleg are very long. The knee bends to allow the foot to be brought to the rear. It was this gait that originated the old fallacy that an elephant had no joints, and also the delusion that the joints moved in a direction contrary to those of other animals. The absence of a collar bone makes it impossible for an elephant to lift his forefoot to any height. It is useful to remember that twice the circumference of the forefoot is in most cases the exact height; and the calculation is never more than an inch or so out.

In India the elephant is found in suitable localities all over the Peninsula. Blanford gives its distribution thus:—"Along the base of the Himalayas as far west as Dehra Dun; also in places in the great forest country between the Ganges and Kistna as far west as Bilaspur and Mandla; in the Western Ghats as far north as seventeen or eighteen degrees; and in some of the forest clad ranges in Mysore and further south." In the Ghat forests of Wynaad they are exceedingly numerous. The greatest height to which they ascend here may be set down as three thousand five hundred feet—in other words, they keep strictly to the belt of heavy forest. Further inland, between the Ghat forest line and the base of the Nilgiri plateau, lies the band of lighter deciduous jungle interspersed with grass hills in which coffee and tea are cultivated. Elephants do not now enter this tract, though old elephant pits are so numerous in it that at some period not very remote they must have roamed through it freely. An ancient Kurumba in my employ has told me that he can remember an elephant being caught on my own estate when he was a boy. Usually little reliance can be placed on such statements

by the jungle men ; but I think this one may be true, as the trees now growing in the old pits are not, judging from their size, more than sixty years old. It seems to me probable that formerly this belt of lighter jungle was used by elephants as a path between the jungles of South Mysore and the Ghat forests below the Wynaad range, in South Malabar ; and that the route was abandoned owing to the opening up of the country by planters. Be this as it may, the old pits furnish incontrovertible evidence that in comparatively recent times elephants were far more widely distributed over South-East Wynaad than they are now.

Sanderson's description of the habits of elephants in Mysore applies in a large degree to Wynaad. During the hot weather, from February to the first burst of the monsoon, their impatience of exposure to the sun restricts them to the heavy evergreen forests of the Ghats, and especially to the vicinity of the many large streams which course through these forests from the Wynaad tableland. Where the Ghat forest ends, along the crest of the Wynaad hills overlooking the low country, the grass hills start ; and many abandoned estates along the verge of this forest are now huge seas of *dhubbay*. In the hot season these hills are burnt by the natives, and with the first rains of spring are covered with a carpet of fresh succulent grass. The advent of the monsoon about the middle of June brings cloudy skies and cool weather, and elephants then leave their forest sanctuary for the open country above. Here they spend a couple of months, changing their quarters frequently in search of fresh feeding grounds, but never straying far from the forest line ; and when, about August, the grass has become rank and coarse, they once more descend

the Ghats. Sanderson attributes their migration at this season not merely to the grass having become unpalatable, but to the swarms of elephant-flies which make their appearance in long grass in the rains, and I have no doubt he is right, for this fly is what Sanderson calls it, "a truly formidable pest."

In the low country jungles—by which term I refer particularly to the jungle clothing the foot-hills at the base of the Wynaad chain—at an elevation of three hundred or four hundred feet above sea-level, elephants are found all the year round. As these jungles are never wholly deserted even when elephants are on the higher ranges, it would seem that only certain herds make a practice of ascending to the plateau at the beginning of the monsoon. In the chapter on bison I refer to the curious fact that females seldom leave the foot-hills; and the same peculiarity attaches to elephants, for though I have on several occasions seen herds of elephants on the crest of the Ghats, as a rule only males climb up to the open country in June. Probably this marked predilection for the flat jungles of the foot-hills on the part of the females of both elephants and bison is due to their desire to spare their calves the long steep climb that an excursion to the plateau involves.

Calves are dropped all the year round, for they can be seen with the herds at all seasons; but Sanderson is undoubtedly right in his assertion that by far the greater number are born from September to the end of the year. He gives the period of gestation, relying on native evidence, as twenty-two months for a male, and eighteen months for a female, calf. Blanford notes: "It has been ascertained to be about nineteen months, though it is said to vary from eighteen to

twenty-two; and according to some writers the latter period has been recorded." As elephants very seldom breed in captivity in India the actual period is not easy to determine; but reliable information ought to be forthcoming from Burma and Siam, where tame elephants are said to breed freely. A female has only one calf at a birth: this I believe to be an invariable rule, though Sanderson mentions "what appears to be a well-authenticated case" of twins. The teats of an elephant approximate more nearly to the human type than those of any other terrestrial mammal, being two in number and placed between her forelegs. She suckles her calf for at least a year.

In this part of the country, a herd may contain any number of individuals from four to forty. Possibly much larger herds exist, but I have not seen more than forty elephants together. When elephants are found in small groups of four or five, as I have often seen them, it is likely that these are scattered parties belonging to one large herd, which have separated in search of food. I say this because I have frequently found such small assemblies close to one another. Sanderson says, "Each herd of elephants is a family in which the animals are nearly allied to each other." Blanford concurs with this statement in these words: "All members of a herd generally belong to the same family, and are nearly related." I am puzzled to know on what evidence this assertion can possibly rest. When a herd is taking its midday siesta, the members fall naturally into groups, and I think it very probable that these, as well as the groups into which a large herd often breaks up, constitute so many distinct families—the bond of relationship keeping the

members of each such family together. But in a large assembly, and especially an assembly containing five or six full-grown males, I should very much doubt whether "all belong to the same family."

As may well be imagined with animals possessing such voracious appetites, the food supply in the immediate vicinity of a herd is soon exhausted, and elephants are therefore constantly on the move. In such migrations, they travel more or less in single file, the herd being led by a female. On the march, the females and calves will usually be found in the van, and the males in the rear. But, as Sanderson notes, if the herd is disturbed or frightened, these relative positions are speedily reversed, no considerations of gallantry inducing the males to cover the retreat.

Sanderson writes : " Much misconception exists on the subject of rogue or solitary elephants. The usually accepted belief that these elephants are turned out of the herds by their companions or rivals is not correct. Most of the solitary elephants are lords of some herds near." It by no means follows that every solitary elephant is a "rogue" : in fact, though single males are not uncommon in the Wynaad jungles, as elsewhere, a veritable rogue is a rarity. An inoffensive tusker or *mukna*, when found by himself, is, I have no doubt whatever, merely a herd elephant who has wandered further afield than his companions in search of food, or who has temporarily separated from the herd to which he belongs for some other reason personal to himself. But if Sanderson means by the passage I have quoted to say that a genuine rogue—an Ishmael whose hand is against every man and every man's hand against him—is also a male who is

“lord of a herd near,” I must join issue with him. I differ on any point from so keen an observer and so eminent an authority with great diffidence : to contradict him on any question concerning the habits of elephants—animals whom he had better opportunities of studying than any other writer—savours of presumption. But I am certain that every true rogue I have known or heard of has been an elephant who has elected to lead an absolutely solitary life, and to sever his erstwhile connection with his herd completely. Whether his decision to lead a hermit life is voluntary or compulsory is another question. Sanderson says, “I do not believe in any male elephant being *driven* from its herd.” But a rogue is always a morose savage beast, ready to pick a quarrel with either his own kind or with man on the slightest provocation, often without provocation at all ; and it is certainly conceivable that if this savage disposition were developed while in the herd, the other tuskers, for the sake of peace and quietness in the community, might make common cause against the offender, and expel him. That they do combine to prevent a rogue having any association with a herd after he has become a rogue, I can vouch.

A wild elephant is by nature a timid and inoffensive animal ; in fact, I would go the length of saying that in no denizen of the forest is the instinctive dread of man possessed by all animals more marked. The merest taint of a human in the air will make the largest herd seek safety in precipitate flight. None the less it is necessary to use the utmost caution in approaching elephants. I do not believe that any elephant (save a confirmed rogue) would charge if warned by his acute sense of smell that man was near

some time before that object of his fear and aversion actually appeared: he would invariably obey his natural impulse, and retreat as fast as possible. But to stumble on a single elephant or a herd—which is of course always due to an unwitting approach upwind—almost certainly means an instant charge. This is not vice: it is not even a contradiction of the rule that an elephant is an inoffensive animal. The charge is prompted solely by that instinct of self-preservation which is the first law of all Nature—just as a man would without thought hit out at a practical joker who crept up from behind and startled him. The elephant suddenly finds himself confronted by the enemy he dreads: he believes he is cornered: and an effort to destroy his enemy is the result. But give him time for reflection, let him realise that retreat is open to him, and an elephant would no more initiate an attack on a man than a tiger. A female with a young calf will also charge without hesitation, either when encountered suddenly, or when the sportsman is following up a herd. The rogue is in a category by himself. His innate fear of man blunted by the constant excursions he makes with impunity into the fields of unarmed ryots, he is ready and willing not merely to fight, but to be the aggressor at all times, and many a poor Nayaka or Kurumba wandering in the jungle in search of roots falls a victim to this perversion of character. Far worse even than the rogue is the tame elephant who escapes to his native wilds in a fit of madness, and makes man-killing the business of his life. Absolutely without fear of men owing to his association with them: endued with extraordinary cunning: bloodthirsty as a man-eating tiger: such an elephant is a fiend incarnate, and I

have known one hold up the whole country-side, wreaking a bloody vengeance on his former masters.

I was much surprised, when I first settled down in Wynaad and began to explore the grand Ghat forests, at the dread of elephants evinced by the junglemen, Kurumbas and Nayakas, who accompanied me in my excursions. Men who laughed at the charge of a bison, or followed a wounded tiger without hesitation, would stop at the crack of a bamboo in the distance, and with the one word "*ānay*" refuse to go further. Expostulation was useless : the only reply was "there are elephants ahead, and we must take another road." This fear I regarded as baseless in a large degree, and as probably induced by the size and formidable appearance of an elephant ; but I soon learnt that it rested on very solid ground indeed. These wild people, men, women, and children, spend the greater part of their time in wandering in the forest, digging up edible roots and tubers ; and while engaged in this occupation, they not infrequently stumble on, and are killed by, wild elephants. The number who meet an untimely end in this way is never known, even approximately ; for living as these junglesfolk do in the heart of the Ghat forests, news of a death amongst them does not reach the outer world. But I know of at least four instances during the time I have been resident in Wynaad in which men have been killed by coming on elephants unexpectedly, and two of my own trackers have had the narrowest of escapes.

The senses of sight and hearing in an elephant are not very acute ; but his sense of smell is developed to an extraordinary degree. I can recall an incident which strikingly exemplifies this. Coming back late

one evening from a ramble after bison, not far from the hamlet of E., I happened on several elephants belonging to the local Rajah. To save the trouble and expense of cutting fodder, it is the practice amongst elephant owners in this part of the country to turn their animals loose in the jungle at night, and let them forage for themselves. As usual, the feet of these elephants were shackled, and the men who had ridden them into the forest had just descended and were standing near. One splendid tusker had his back turned to us, and was busily occupied in pulling down creepers from a high tree. I was standing a few yards away admiring him, when suddenly he swung round in a fury, with ears and tail cocked. At first I thought the demonstration was directed against myself, and instinctively I raised my rifle, when the Paniya keeper, who was by my side, proceeded to explain that the tusker's show of temper was due to the appearance on the scene of another Paniyan whom he hated. I looked round and saw the youth who had raised the tusker's ire standing about three hundred yards away. Not only had the elephant been able to wind him at this distance on a still evening, but he had distinguished the taint of his enemy amongst the odours of at least a dozen other Paniyans. We were all—the Paniya keepers, my Nayaka trackers, his Paniya aversion, and myself—standing between the wind and his nobility, and it struck me at the time that only a supersensitive nose could have separated the commingled effluvium into its component parts.

This exquisite sense of smell makes it impossible to approach elephants down wind ; but by the exercise of a very ordinary degree of caution the sportsman can stalk to within a few yards of a single elephant or a

herd, provided he is careful to get and to keep the wind right. Not only, as mentioned above, are sight and hearing not highly developed in an elephant, but his kingship over the jungle is so universally recognised and acknowledged that he is absolved from the observance of any precautions for his own safety, and this immunity from attack by other animals makes him as a rule quite unsuspecting of danger. From the sportsman's standpoint, the ease with which elephants can be stalked is a great advantage for two reasons—first, because an elephant can only be killed by a steady shot from a favourable position, and next, because to follow up a wounded elephant is often a service of great danger. Practically, the only shot by which an elephant can be brought down in his tracks is one through the brain, and for success in elephant shooting, a study of the animal's skull is absolutely essential. This is large and high, and consists for the most part of cancellous tissue containing air compartments of various sizes. A bullet passing through this tissue inflicts no serious damage, though it may temporarily stun the animal if in close proximity to the brain: the only fatal spot is the brain itself. This is small, and lies low down and far back, a little below and in front of a line drawn from ear-hole to ear-hole. When an elephant is at rest in his normal position, and both he and the sportsman are standing on more or less level ground, the brain can be reached from the direct front by a shot into the bump between the eyes, the right point to aim at being a trifle *above* the centre of this bump. When the sportsman is opposite to the ear, at right angles to the position in which the elephant is facing, the shot should be into the ear orifice, or preferably an inch or so in front of it towards the temple. This shot should

be as nearly horizontal as it is possible to make it. If the sportsman is opposite the elephant's body or further back, the spot to aim at is the hollow behind the ear, above the protuberance which marks the junction of head and neck, as the ear flaps forward. These are the most favourable shots (as being the easiest to determine) at the head of an elephant at rest in a natural attitude on level ground, and in stalking every effort should be made to reach a position from which one of these shots can be obtained. It is obvious that any change in the relative positions of elephant and sportsman will necessitate a corresponding alteration in the direction of the bullet. The sportsman may, by force of circumstances, be unable to get a shot from immediately in front at the bump in the forehead, or exactly at right angles into the ear-hole, or from half a right angle at the hollow behind the ear; the elephant may be charging with his head held high, or he may be on higher or lower ground than the gunner. It is not feasible to discuss every possible variation: the only method by which the would-be elephant hunter can hope to achieve success is to study closely a vertical section of an elephant's skull in order to get a lasting impression of the position of the brain, and then to take imaginary shots at the head of a tame elephant from every conceivable direction. I need scarcely say that the most important shot of all to study is at a charging elephant with his head in the air, for that may be a matter of life or death. Naturally, this shot must usually be taken directly in front of the on-coming beast, and under such conditions there is very little time (or inclination!) for calculation. Generally speaking, the bullet should be fired into the centre of the trunk, between the

tusks. Sanderson has some excellent diagrams in his book, showing the situation of the brain and how the head shots should be placed.

Provided the rifle is of large calibre and the powder charge heavy, an elephant may also be killed by a shot behind the shoulder or into the chest, through heart or lungs. But such a shot is always uncertain, and wherever possible the head shot should be preferred, as penetration of the brain means instant death. A shoulder-shot from a small bore rifle is nothing short of criminal. It cannot be mortal, and must always cause the animal intense and lengthy suffering. Further on I give an instance of the insensate cruelty of body shots at an elephant with a light rifle.

These remarks on the vital points of an elephant naturally lead on to a consideration of the weapons that should be employed in the sport. On this question there is not room for two opinions. The golden rule is "use the heaviest rifle your strength will allow." An elephant's head is easily penetrated by a bullet, being composed—as mentioned already—of air cells separated by thin partitions; and they have often been killed by bullets from light rifles. But to compass the death of an elephant with a twelve-bore or an Express presupposes that every condition is eminently favourable. The sportsman must be in an advantageous position, and he must have time and opportunity to take aim as steadily as if he were firing at an inanimate target. I make bold to say that never yet has an elephant been killed by a small bore rifle save under conditions as favourable as these; and this happy concatenation of circumstances it is not possible always to secure. What the elephant hunter has to be prepared for is a scrimmage, and in such

a contingency a light rifle would be of as much service to him as a popgun. Sooner or later he will have to stand up to a charging elephant, and the only weapon that will help him then is one heavy enough to give a knock-down blow, even if it does not kill. I do not here discuss the merits of various rifles or indicate the one most suitable for elephant shooting, as I have gone into the question in the chapter on sporting weapons.

If when stalking a herd the sportsman's approach is detected, the elephant making the discovery usually announces it to the other members by a short trumpet, a danger signal which is thoroughly understood. On hearing it, the elephants stand like statues for a minute or two, every sense on the alert, with the view of locating the direction from which danger threatens, and should they receive any further confirmation of their suspicions, a general stampede ensues. If, after listening intently, they get no further indication of the sportsman's presence, they decamp quickly but silently. Once the danger trumpet is sounded, elephants never stand their ground. On several occasions a change of wind at the last moment has betrayed my presence to a single member of a herd, and I have heard the short sharp alarm note, but though in these instances the other elephants had no knowledge of my vicinity, the whole assembly have invariably made off. Sometimes the elephant who has winded the sportsman retreats without making any sound, and in such cases the alarm is communicated to the rest by some occult means, and the whole herd melt away as if actuated by a common impulse. It is nothing short of marvellous how, even in thick cover, these enormous animals can disappear in

absolute silence. Frequently when I have been sitting watching a herd, an elephant has suddenly realised that a "chiel was takin' notes," and in a minute, with never a sound to mark their retreat, the herd have stolen away. I know only one other animal—the Nilgiri ibex—in which this faculty of giving silent warning of danger is as marked as in the elephant.

A short trumpet—but one quite distinct from the alarm signal—is also the challenge of a charging elephant; and in the whole wide realm of Indian sport there is nothing to be compared with this in grandeur, in excitement, and in real danger—the charge of an infuriated tusker. As the elephant is incomparably, indisputably, king of the animal creation, so does his onslaught dwarf into insignificance that of any other animal. I can vividly remember how, when a boy, I gloated over the hair-breadth 'scapes from elephants, told in old books on African sport: how I rode with Gordon Cumming, bent double over the horse's neck, as the uplifted trunk of the monster thundering behind crept ever nearer: how our equine wonder "Colesberg" responded to a pressure of the knee, and by a dexterous twist at the psychological moment eluded the furious pachyderm: how with the agility of a practised acrobat we threw ourselves from the saddle, and with a "ragged" bullet from our "trusty" rifle laid the bloody monster low in full career; but all my boyish dreams fell far short of the reality when for the first time I had to stand up to a charging elephant. The grand head is held high; the trunk is curled between the gleaming tusks; the mighty bulk comes on with surprising swiftness; the whole performance impresses one with a sense of relentless, irresistible power. Can the puny mortal standing in the

path of the on-coming elephant by any possibility stay that tremendous attack? Then it is that the possession of a heavy rifle gives one a feeling of absolute confidence, and enables one coolly, calmly, to stop that terrific rush. But woe betide the man who in circumstances like these grasps a pop-gun! Assuredly an elephant's charge is an experience that, once undergone, can never be forgotten!

Sanderson puts the utmost pace of which an elephant is capable at "fifteen miles an hour for a very short distance." Personally, I should say a charge—which brings out his best pace—is made at a rate considerably faster than this. A runner who could do his one hundred yards in even time would have all his work cut out to evade a charging elephant—in fact, I would give the man a dozen yards start and back the elephant every time in a race of a furlong. Ten yards per second means twenty and a half miles per hour, and I cannot be far wrong in saying that, for a couple of hundred yards or so on open level ground, an elephant can travel at something over twenty miles an hour. His ordinary pace is a fast walk—or more correctly a walk which appears to be fast owing to the six feet covered in each stride, for he does not move his legs rapidly; and this carries him along at about five miles an hour over fairly easy country. I have several times ridden over the forest path between E. and N., which involves a certain amount of hill climbing and the crossing of two large streams, in two hours, the distance being some nine miles.

The daily routine of an elephant closely resembles that of a bison. He begins his morning meal a couple of hours before sunrise, and feeds till nine or ten a.m., when he seeks some dense shady

cover in which to doze till the early afternoon. About three o'clock he again sallies out to feed ; and here occurs a divergence between his habits and those of a bison, for whereas the latter retires soon after dusk, the elephant often continues his meal till midnight, owing doubtless to the much larger quantity of food he requires. Whether he then lies down, or takes his rest standing, is a moot question. Personally, I incline to the former view ; for though I have never seen a wild elephant lying down, my Nayakas—whose lives are spent in the jungles and who are keen observers of the habits of animals—have assured me that they have frequently come across elephants at night in a recumbent position, and more than once they have pointed out depressions in soft ground which certainly seemed to have been made by an elephant's body. One thing is certain—that, whether taken standing or lying, his rest is of short duration ; for by three or four a.m. he is on the move again. His food is practically the same as that of a bison, consisting of grass, leaves, the fruit and small branches of certain jungle trees, the tender shoots of the bamboo, and the stems and leaves of the wild plantain. He is particularly fond of trampling down the dense thickets of *kuglasuppu* which grow in every swamp in Wynaad ; but these spots are always in such an indescribable mess after an elephant's visit, that it is impossible to say whether the fronds are destroyed through mere wantonness, or torn off for food. Owing to this similarity in diet the ranges of elephants and bison in Wynaad are coterminous.

The food is conveyed to the mouth by the trunk, small fruit and other like objects being picked up by compression between the finger and the small lobe

which form respectively the upper and lower extremities of its tip. When the objects are too minute to be handled in this way, such as dry grains of rice, they are drawn up into the end of the trunk by suction, and then discharged into the mouth.

In captivity, in this part of the country, elephants are given a quantity of rice every afternoon, and are turned out in the jungles at night to find their own green food. The rice is boiled till quite soft, and then rolled into large balls, which are placed far back in the elephant's mouth by the keeper. When I go on to describe the elephant as a carnivore, I can well imagine the incredulity with which the statement will be received. Yet none the less is it a fact that in Wynaad and Malabar tame elephants are meat-eaters, not from choice, but by compulsion. During the timber season, they are worked without cessation, and at the end of it are naturally overstrained and out of condition. The practice is then to give them a rest, and during this holiday they are fed on a meat diet. A goat is put into a cauldron, and boiled down to a thick soup, and each elephant in turn is made to eat a portion of the meat, and to drink about a quart of the soup. The native idea is that this diet strengthens them, and puts them into good fettle for the next timber-dragging season. For a day or two the keepers have some difficulty in inducing their charges to accept the change of food, but thereafter they eat it readily.

Elephants, both wild and tame, delight in water. I frequently visit a timber camp at the foot of the hills, which lies between two large rivers, down which enormous quantities of timber are floated to the coast every year from about September to February. The logs are dragged from the forest where they are

felled to the river-banks by elephants, and during the timber season there are usually about forty or fifty elephants engaged in this work. Each morning they are brought down to the river for a bath before work begins, and this matutinal ablution is a most interesting sight. They are made to lie down in a long line in shallow water, while the keepers, two or three to each elephant, go carefully over them with a smooth stone. Every square inch of the huge carcase is scrubbed and washed, the elephants lying perfectly still through the performance, in a trance of enjoyment. The upper side having been thoroughly cleaned, the elephant turns over, and the process is repeated on the other. The bath occupies at least an hour, and the elephant emerges from it with a glossy black hide, and looking as fresh as a daisy. At intervals during the day, as the logs are brought to the waterside, the elephants are driven into the stream, and made to syringe themselves; and I have often been amused at the eagerness they display to get their refresher as quickly as possible. The log placed in position, the elephant drops the hauling rope with quite evident relief, and at once wades out into deep water. There, with his keeper standing up on his back, he submerges his body, only the veriest tip of his trunk appearing above the water, and after several such plunges, wades slowly back to the bank: then to work again, till three in the afternoon, with another bath to wind up the day. In their wild state, elephants disport themselves in these streams every morning and afternoon; and I have often watched a herd enjoying themselves in a river-bed, showering water over their backs and sides with their trunks. They are addicted to certain reaches, and in many places the paths leading down to

their bathing pools are as wide and smooth as a well-made road. As swimmers, they probably excel any other quadruped in endurance, though their pace in the water is very slow. I once timed seven tame elephants who were being taken across a deep pool in the Charliyar river. The breadth of the stream at this point was about quarter of a mile, and none came over in less than quarter of an hour.

Elephants have a habit of plastering themselves with mud as a protection against stinging insects and flies. It is curious that this huge beast, with his abnormally thick hide, should be so sensitive ; but no animal suffers more than he does from the swarms of blood-sucking flies which come in with the early rains. As a consequence of this habit, wild elephants from a little distance usually appear of a dirty brown instead of black. They also have favourite "rubbing places," often the projecting bank at a turn in some old road, where the earth for some distance is worn quite bare and smooth by contact with their bodies. Tuskers too have an odd knack of digging into the earth with their tusks at particular spots for no apparent reason. On an old road running down from the crest of the hills to my bison valley, miniature caves have been formed in the bank in several places by this means, and year after year male elephants return to these spots to go through the same performance. There is never any doubt who the diggers are, as the tusk marks are always very distinct in the soft soil.

Mature males are subject at certain intervals to a peculiar species of fit, supposed to be sexual, though this has not been proved. Blanford calls these fits "periodical attacks of excitement," but this is scarcely correct, for—as Sanderson notes—"elephants are not

always violent or untractable under their influence." In several instances, I have known large tuskers to be merely dull and stupid under such an attack : they evinced no animosity either to their keepers or their fellow elephants. But usually they are dangerous when in this state, and are said to be *must* or mad. The beginning of an attack is marked by a flow of dark oily matter, resembling coal tar, from the orifice in each temple, and this flow becomes copious when the fit of *must* is at its height. At the first symptom the elephant is segregated and strongly secured. I once knew a *must* tusker break loose with dire results. His madness took the form of systematic man-killing ; he held up the whole country-side for a radius of five miles round the village of E., and he killed eight men before he came to a tragic end. Sanderson notes that females sometimes suffer from similar attacks of *must*, and he mentions having seen the peculiar exudation in two newly-caught females. I have never known or heard of such an instance myself. An analysis of this oily secretion would be interesting, and I wonder it has never been made.

I have alluded to the alarm signal elephants give on winding a man, and to the short trumpet or shriek which heralds a charge ; but they make many other sounds. These are well classified by Blanford, and I cannot do better than quote his description. He writes : " First the shrill trumpet, varying in tone, and expressive, sometimes of fear, sometimes of anger. Secondly, a roar from the throat, caused by fear or pain. A peculiar hoarse rumbling in the throat may express anger or want, as when a calf is calling for its mother. Pleasure is indicated by a continued low squeaking through the trunk. Lastly, there is a

peculiar metallic sound made by rapping the end of the trunk on the ground and blowing through it at the same time. This indicates alarm or dislike, and is the well-known indication of a tiger's presence. An elephant sometimes tries to frighten its enemies by blowing through its trunk."

In Wynaad—in fact, in Southern India generally with the exception of Mysore,—elephants are caught solely by means of pitfalls. This method is not only cruel, but wasteful, for a large proportion of the elephants thus caught die from injuries received in their fall of fifteen feet. But though the system must be condemned from every point of view, Sanderson goes a little too far when he writes: "An immense majority of the elephants that make the descent have their limbs dislocated or broken, or receive permanent internal injury, even if they are not killed on the spot, as sometimes happens." I have no statistics to guide me, but I do not think I am wrong if I put the number of elephants who sustain injuries which ultimately prove fatal at a third of the total number caught. Even 33 per cent. is, of course, a heavy mortality, and I have often wondered why the Government have not adopted the *keddah* system to supply their wants, in view of the large number of elephants that roam uselessly through the extensive Government Reserve Forests in various districts of the Presidency. Elephants are not now used by Government to anything like the same extent as in former years, their use in fact being restricted to timber work; but I imagine that no difficulty would be experienced in selling all not required by Government themselves to outside buyers at remunerative prices. A *keddah* establishment entails considerable cost (Sanderson notes that

the monthly outlay in Bengal is Rs. 3800, irrespective apparently of the pay of the European Superintendent), and its upkeep could not be undertaken by any native Zemindar or landowner with any hope of successful results, chiefly because the scope of his operations would be too limited. But to Government, with thousands of square miles of forest inhabited by elephants to draw upon, a well-organised *keddah* establishment in regular work would, I should imagine, be a very profitable business. Sanderson gives some details of an experiment in *keddah* work made by Government in the Coimbatore District in the years 1874-7. Between these dates seventy-six elephants were caught, the total cost of the experiment being about Rs. 1,30,000. As he points out, the expenditure was needlessly high—far higher than would be the cost of a *keddah* party in regular and systematic operation; but even at this outlay, the cost per elephant works out at only Rs. 1700, a low price, given that a fair proportion of the captured elephants were tusked. As matters stand, the Government Forest Department employs the pitfall system solely; and a *keddah* establishment on even a small scale, if it did nothing else, would obviate the waste and cruelty of the present method.

Pits are usually about twelve feet long, eight wide, and fifteen deep. To break the elephant's fall, a stout pole is placed across the pit, and if the owner of the land is humane, a thick bed of branches and grass is spread at the bottom. A succession of such pits is dug on a track frequented by elephants when migrating from one part of the forest to another, if possible in some spot where the conformation of the ground does not give much passage-way on either

side. They are then covered by poles or bamboos laid closely side by side ; on this framework a layer of grass is placed, then a layer of soil, and the covering made to resemble the surrounding ground as much as possible. A deadly addition is a handful of *ragi*¹ scattered over all. This sprouts and entirely conceals the pit with a thick green carpet, and should an elephant use the track while the *ragi* is fresh, his capture is almost a certainty. Considerable ingenuity is displayed by the natives in the location of the pits. Often one will be left open on either side to induce the elephant to keep to the middle of the track, where a concealed pit awaits him. Or a barrier in the shape of a pile of stones or a tree will be laid across the track, compelling a circuit which leads to a pit. Sanderson says elephants fall into these traps "with a readiness which is remarkable in animals which are usually so cautious in all sorts of ground." But my experience (and this has been considerable in the matter of pitfalls) is that an elephant only falls into a pit when it is so artfully constructed that it is impossible to distinguish it from the ground around. The smallest break in the covering, the least hint of a trap, and an elephant will carefully avoid the pit, though other animals, such as bison and deer, will readily fall into it. That an elephant is no bigger fool than a man in being unable to see and avoid a properly covered pit, the following instance will show. I was desirous of catching an elephant on the large area over which I had formerly the right to "kill, capture, and pursue" elephants, and I offered my Nayakas a handsome reward for one. On an old road leading

¹ *Eleusine coracana*, a millet which forms the staple food of the coolies in Wynaad.

through the land, they dug several pits and covered them with a living green carpet in the way I have described above. I was at the bungalow at the foot of the valley one day, when a policeman turned up who told me that a criminal was supposed to be working on the estate, and he had been sent ahead to await the arrival of the "Station House Officer." He waited for several hours, but the S. H. O. did not put in an appearance, and as the road to the bungalow led through rather wild country I sent a few Kurumbas to see what had become of the official. In the evening they returned with the limb of the law in a sadly bedraggled state. He was limping, and his swagger uniform was covered with mud and dirt. By mistake he had taken the old road, and had walked right into one of the *rangi*-covered pits. Fortunately I had insisted on a very thick layer of grass being laid on the bottom, so he had escaped with nothing worse than a shaking and a sprained ankle. I can vividly recall how, as he sat on the verandah nursing his injured foot, he cursed the fate that had sent him criminal-hunting in country where people were trying to catch elephants! Shortly afterwards, a tusker fell into the same pit, which had been repaired in the interval; and if by doing so he evinced a lack of intelligence, well, he erred in good company, for even the human "detective" had been deceived.

Since Sanderson expressed the opinion in his book that "the elephant's sagacity is of a very mediocre description," it has become the fashion to decry this animal's intelligence. Sanderson is, rightly, held to be such a pre-eminent authority on matters elephantine, that his view has been accepted and reiterated by modern writers seemingly without question, certainly

with little if any inquiry into its correctness. Blanford, for example, says : " I quite agree with Sanderson in believing that the intelligence of elephants has been greatly overrated " ; but he gives no reasons in support of that belief. Now I do not for a moment contend that the intelligence of the elephant is so highly developed as to overstep the border-line between instinct and reason : that fallacy has been long exploded. But I do claim that if he is not the superior, he is at least the equal of any other member of the animal creation in sagacity ; and as his devoted lover, I cannot refrain from making an effort to show that Sanderson's strictures are not borne out by the arguments he adduces in support of them ; and that to call the elephant, as he does, a " stupid animal," is simply a libel. The question is so interesting, and I so greatly regret the universal adoption of Sanderson's opinion without, as it seems to me, sufficient scrutiny of the basis on which it rests, that I must be pardoned if I go into the subject at some length.

Here is the charge in Sanderson's words : " The opinion is generally held by those who have had the best opportunities of observing the elephant, that the popular estimate of its intelligence is a greatly exaggerated one ; that, instead of being the exceptionally wise animal it is believed to be, its sagacity is of a very mediocre description." And here is the proof of this contention that he puts forward : " Let us consider whether the elephant displays more intelligence in its wild state than other animals. Though possessed of a proboscis which is capable of guarding it against such dangers, it readily falls into pits dug for catching it, and only covered with a few sticks and leaves. Its fellows make no effort to assist the fallen

one, as they might easily do by kicking in the earth around the pit, but flee in terror. It commonly happens that a young elephant falls into a pit, near which the mother will remain until the hunters come, without doing anything to assist it, not even feeding it by throwing in a few branches. . . . Whole herds of elephants are driven into ill-concealed enclosures which no other wild animals could be got to enter, and single ones are caught by their legs being tied together by men under cover of a couple of tame elephants. Elephants which happen to effect their escape are caught again without trouble; even experience does not bring them wisdom. . . . I do not think I traduce the elephant when I say it is, in many things, a stupid animal; and I can assert with confidence that all stories I have heard of it, except those relating to feats of strength or docility performed under its keeper's direction, are beyond its intellectual power, and are mere pleasant fictions."

Here then we have the proofs, in Sanderson's words, that the elephant does not possess a larger measure of intelligence than, or even the same intelligence as, other wild animals. In reply, I would ask the harsh critic of the elephant to name the wild animal which, in his view, is the most sagacious, and and then to say whether, in the various crises cited by Sanderson, that animal would display more intelligence than the elephant. Categorically, my query would be: (1) Would your selected animal, by virtue of its innate sagacity, be always able to discover and avoid a carefully concealed pit? (2) If it fell in, would its fellows make any attempt to rescue it? (3) If it was a young one, would the mother endeavour to extricate it, or would she feed it while

in the pit? (4) If a herd of your selected animals was surrounded on three sides by a yelling crowd, would the animals not naturally try to escape by a stampede in the direction which seemed clear? And if an enclosure—invisible till the last moment—awaited them in that direction, would they not enter it in their anxiety to find a way of escape? (5) If the animal were caught and escaped, are you prepared to say that its capture would be so indelibly impressed on its memory that by no stratagem could it be caught again? Unless anyone who decries the elephant is satisfied that his selected animal would act with greater intelligence in these circumstances, he must admit that the elephant is at least on the same plane as other animals in the matter of sagacity.

But I go further than this. I maintain that an elephant in a difficulty *does* show more cleverness than would other animals. Sanderson is unfair in saying that pitfalls are “merely covered with a few sticks and leaves”; on the contrary, these traps are always most artfully concealed, and are made to resemble the surrounding ground so closely that even men, as I have shown, sometimes come to grief. On many occasions I have known elephants avoid a pit because the covering had sunk slightly, or some other sign betrayed its presence. In such cases they have left their usual track and made a circuit round the danger. Then as to the “proboscis being capable of guarding it against such dangers,” it certainly is; but an elephant does not invariably travel with the tip of his trunk on the ground, searching for hidden pitfalls, any more than a man invariably carries a stick to guard himself from the attack of a mad dog. When an elephant falls into a pit, it is merely an accident

which occurs at an unguarded moment : it does not argue an inherent lack of intelligence. Bison, deer, and other animals fall into these pits even more readily than elephants—I have even known that most wary customer the porcupine to be caught napping. But once in a pit, does an elephant make no effort to get out? Far from it : he strives unceasingly to escape, and with success if he is given time enough. The tusker I have mentioned as having fallen into the same pit as the policeman, was caught at night. I was away at the time, and my men did nothing towards noosing him. I arrived at the pit on the third morning, only to find the elephant gone—he had raised himself sufficiently to climb out by persistently digging down the sides with his tusks. Even females endeavour to push down the earth with their feet. How does a bison or stag act in a like predicament? He could bring down the soft earth with his horns ; yet though bison and sambur are often caught in pitfalls, I have never known a single instance in which either made the least effort to free himself. That is the point : the elephant *does* make the effort ; other animals do not.

To show how unfair Sanderson is in stating that an elephant will readily fall into a pit “merely covered with a few sticks and leaves,” I will quote an instance recorded by General Hamilton. He writes : “I omitted to mention one trait exhibited by a female elephant on that occasion, which struck all those who were present as very curious. She entered the *coopum* some hours before the herd was driven up, having apparently escaped from the watcher, and taken, as she thought, a safe line of her own. In she came, bustling along with two young ones with her, one some

three or four years old, or perhaps more, the other quite young. Now the lower part of the *coopum* was intersected with a range of pits, and the outer fence protected by a V-shaped ditch ; the pits were arranged something like the squares of a chessboard, with a narrow path between each, wide enough for a man to pass along. All the pits were covered with light bamboo frames, on which a layer of grass was placed, and the whole made to appear as natural as possible. Down came the old female, somewhat alarmed at hearing voices, and seeing some of us on the *coopum* wall ; but the coast appearing clear in front, she made straight for the pits. Just as she reached them she pulled up, perhaps suspecting something, and at the same moment down went first one child, then the other, into a pit close by. Taking a look at her lost progeny, uttering a shrill trumpet after gazing all round, she seemed to make up her mind ; so, carefully feeling the ground before her with her trunk, at times producing the metallic sound I have previously spoken of, she threaded her way through the treacherous labyrinth without making a single false step or mistake, reached the barrier, and then tried to essay what elephants cannot do—that is jump ; her hind legs fell into the ditch, and she could not escape, poor thing, and was shot with the rest.” I make bold to say that no animal but an elephant would have negotiated such a maze without mishap. So far from falling blindly into traps, the cleverness elephants show in avoiding them is extraordinary. There is an old cart road near my bison preserve, cut by a mining company through dense jungle much frequented by elephants in the spring months. Midway along this road is a bridge over a stream built with heavy iron rails stretched from

buttress to buttress, and floored with thick sheet iron covered with soil. As I came down one morning with G., we noticed that a herd of elephants had passed up the road the previous night, and had turned off again into the jungle near some old tunnels. There were no tracks across the bridge, and we found that the herd had made a path down to the stream at this point, and up the opposite bank, joining the road again a little above the bridge. The suspicion shown by the animals led us to examine the bridge above and below ; but it appeared quite sound, and we concluded that the elephants had been needlessly cautious. Yet shortly afterwards, on riding over this bridge on a large Waler, G. went through. It was, surely, a marvellously developed instinct which enabled the elephants to realise that an apparently sound bridge was in reality unsafe. Even if their avoidance of it was due simply to inherent caution, this to my mind is proof that they do not, as Sanderson would have us believe, run blindly and stupidly into danger.

Further on Sanderson writes : " I have never seen an elephant show any aptitude in dealing, undirected, with an unforeseen emergency." Though, as I have said, I do not claim for the elephant reasoning power in the sense in which that term is usually understood, here again I must join issue with Sanderson, for I believe that when an elephant is placed in a novel and unexpected position of difficulty, he does intuitively exhibit far more capacity in dealing with it than any other animal. I could cite several instances which have come under my own observation in proof of this assertion, but I will borrow again from General Hamilton. He is describing an adventure with a herd, and he writes : " Just then four or five of the

herd, with a small tusker in front, passed across me, some forty yards or so off. Taking a shot at the leader, down he went on his knees, struggled a bit, and again was on his legs; but no sooner so, than the other barrel knocked him down once more. Then occurred the most extraordinary scene: two or three of the females following him set to and hustled him up, and as he fell over to one side, still half stunned, they bore him up, and again as he struggled to keep his legs, supported him; and, pushing him along, amidst the most infernal din of roaring and screams and trumpeting man ever heard; and so actually bore him away with them and got him safely off." Now here was "an unforeseen emergency," and doubtless a novel one too, for I think we may take it that these females had never been called upon to render succour to a wounded tusker before. How did they face it, "undirected"? With a degree of intelligence which, I am confident, no animals but elephants would have displayed. Take another case. I was fishing in a river at the foot of the hills one day, when a tusker came along in the shallow water, dragging a large log. His keeper was not on his back, but was walking along the bank, keeping pace with his charge. A short distance above where I was standing the elephant came to a standstill: something had obstructed the log. The keeper shouted abuse in Malayalam, and the tusker arched his back in a mighty effort to get the log over the obstacle. But the tree would not move. The keeper shouted more abuse, and then the tusker did a thing which impressed me immensely. He dropped the hauling rope, walked back, gave the end of the log a heave backwards which set it free, took the rope once more in his teeth, and calmly

proceeded down stream. I was so struck with his cleverness that I examined the spot, and found that the forward end of the log had jammed between two large rocks just below water level. Here again was "an unforeseen emergency," and the elephant, undirected, proved himself fully equal to it. His feat would have been nothing had the keeper been on his back to direct him: its cleverness lay in the fact that the elephant's action was entirely spontaneous—that he had successfully coped with the difficulty unaided, and solely by the light of his innate sagacity.

I have seen the ease with which an elephant can be tamed, his quickness in learning, and his obedience, all used as arguments in his disfavour. In my view, these are strong proofs of his intelligence. He does not carry on a long fight when captured because, like the sensible animal he is, he realises the futility of kicking against the pricks. Is the man foolish or wise who adapts himself to a new environment when he sees it is unalterable? Who is quicker to learn, and to profit by his learning—the dull boy or the bright one? Is not obedience counted in a servant's favour? Arguing from human analogy, which is surely justifiable, the wonderful manner in which an elephant surrenders to his altered circumstances after capture, the speed with which he can be taught, his implicit obedience, his gentleness, his retentive memory, his patience, are all attributes which furnish the strongest proof that in sagacity he is far above all other wild animals. As he is incomparably the grandest, so is he incomparably the most intelligent member of the animal creation,

THE ELEPHANT (*continued*).

IN this year of grace 1911, it seems scarcely credible that so late as 1873 the indiscriminate slaughter of elephants was not only permitted in the Madras Presidency, but was encouraged by Government by the offer of a large reward for every elephant killed ; and even after this lapse of time the elephant lover must feel a pang of regret at thought of the wholesale butchery that was perpetrated under the ægis of this deplorable system. I have heard lurid but quite authentic tales of how men made elephant-killing the business of their lives ; of how cows and calves were slain by the hundred—yes, literally by the hundred—for the sake of the reward, which was not claimed in the case of tuskers because the value of the ivory greatly exceeded the Government fee ; and of how, as a natural result, elephants were exterminated in certain tracts where previously they had roamed in herds. Here, in S.E. Wynaad, the slaughter was enormous, and I have heard (I believe this is strictly true) one man who was then resident here credited with the killing of three hundred elephants, mostly cows and calves. What a sad picture of wanton destruction is conjured up when one goes back in imagination to those dark days !

But fortunately the Government perceived the error of their ways before it was too late ; and from the 1st October, 1873, the "Act to prevent the indiscriminate destruction of wild elephants" came into force. Briefly, its provisions are these. The killing of any elephant, male or female, is absolutely prohibited on Government land without a licence. On *Zemindari*, or private land, the right to kill male elephants is vested in the owner of the land, who can also give any other person permission to kill them ; but on such land females are protected. Elephants, male or female, can be killed (1) when found on cultivated land, (2) when on or in the immediate vicinity of a public road, and (3) in self-defence anywhere. The Collector of the District has power to grant a licence to kill male elephants "for a period of one year from the date of the grant of such licence."

It will be seen that absolute protection is given to females ; and that a male elephant can only be killed on Government land under licence, and on private land under permission from the owner ; and as both Government and private owners are fully alive to the value of elephants, the Madras forests are not happy hunting grounds for the would-be elephant shooter. I have never heard of a licence being granted in any Madras District, though of course rogue elephants are proscribed ; and I should imagine that a licence holding good for a year is unprocurable by anyone. The local *Zemindars*, or landowners, occasionally may be persuaded to permit the shooting of a tusker, but in such instances (except in the case of very "big guns" indeed) they stipulate that the tusks shall be given up ; and, I regret to add, I have known "sportsmen" accept the stipulation. I can understand the keenness of the

globe-trotting gunner to bag an elephant for the sake of the grand trophy ; but what must be said of the man who sallies out to shoot this noble animal in the full knowledge that if he succeeds the trophy will have to be surrendered to the owner of the land ? The only feeling that can actuate such a man is mere lust for blood—a feeling which is certainly foreign to the character of the true *shikari*.

In regard to elephant-shooting I at one time occupied a unique position, for over a large area in which elephants are numerous, I had the sole right to “ kill, capture, and pursue them,” and had I thirsted for their blood I could easily have gratified the craving. But I have such an intense admiration for this magnificent creature that I never see an elephant without a feeling of regret that the death of even the one I have shot can be laid at my door ; and nothing would now induce me to shoot another unless he were a confirmed rogue, or in self-defence. This view, pushed to its logical conclusion, ought perhaps to stay the hand of its propounder in respect to all animals, for, *prima facie*, it does seem inconsistent to set one’s face resolutely against the killing of one animal, and then to kill others with at least an equal right to live. But the elephant stands out so incontestably as the king of the animal creation, that to me he seems to occupy a class by himself. In the wonderful words of Holy Writ :

“ He is the chief of the ways of God.

“ Upon earth there is not his like, who is made without fear.

“ He beholdeth all high things : he is a king over all the children of pride.”

Holding this view, may I not set the elephant apart

and still indulge my predilection for sport, without laying myself open to a charge of inconsistency? The general question involves a nice point in ethics, on which opinions will always be divided. For my own part, I can only plead in extenuation that in the veins of the *shikari* the sporting instinct—the killing instinct if you will—runs so strongly that he must perforce submit to its dictates: the “Red Gods call him out, and he must go.” It may be a brutal instinct; but it is there and will not be denied; and those good folk who, without the instinct themselves, rail against the sportsman for indulging it, can have no conception of its irresistible force. Yet in obeying it, I do not for a moment concede that a man must necessarily sacrifice all discretion, and become a mere slaughterer of animals. However ardent his love of sport may be, he can, and ought to, refrain from the killing of any inoffensive animal save a male with a trophy worth the taking. I have tried to practise what I preach, and in looking back over my sixteen years’ residence amongst the game animals of Wynaad, I confess to a feeling of satisfaction in the reflection that never have I pulled trigger on a female elephant, that only once—and then by a pure accident—have I killed a cow bison, and that the very few hinds I have shot were killed solely to provide food for my followers. To the man to whom sport is a sealed book, I have no doubt the above argument will seem deplorably weak; but every *shikari* will agree with me that in following his natural bent he is impelled by a force he cannot control. And it should be remembered that the hunting instinct is not of man’s own making. It comes as directly from his Creator as any other of the many instincts by which his complex nature

is swayed. "Nimrod was a mighty hunter before the Lord." But though this inherent love of sport exercises over its possessor an influence too strong to be resisted, it *is* given to him to keep it within bounds, and to prevent compliance with a natural impulse from degenerating into mere butchery. It is not the indulgence of the hunting instinct, but its abuse, that is to be condemned. So much on the general question of man as a hunting animal.

In the previous chapter I referred to the cruelty of body shots at an elephant with a light rifle, as they cannot be mortal and they cause the animal intense suffering. Some years ago a tusker frequented the public road between Pundaliur and Cherambadi who, rightly or wrongly, gained the unenviable reputation of a "rogue." Many stories of his misdeeds were current at the time, some of which possibly had a foundation in fact, while others were palpably exaggerated. People told how he had attacked two inoffensive policemen on their "beat" between the above places, how these men only escaped by taking refuge in a drain, how time after time the elephant thrust his trunk first into the upper opening, then into the lower, in the effort to reach them, and how he had held them prisoners for hours—or was it days?—in their narrow sanctuary. Shortly after the rout of the bobbies came the news that he had killed a man, mangling his victim in the most fiendish way; then a cart had been smashed and the bulls gored to death, and so on. Certain it is that he established a state of "funk" over this particular stretch of road, and cartmen and coolies refused to traverse it at any price.

When the panic was at its height, a gallant sportsman camped at P. with the avowed object of ridding the

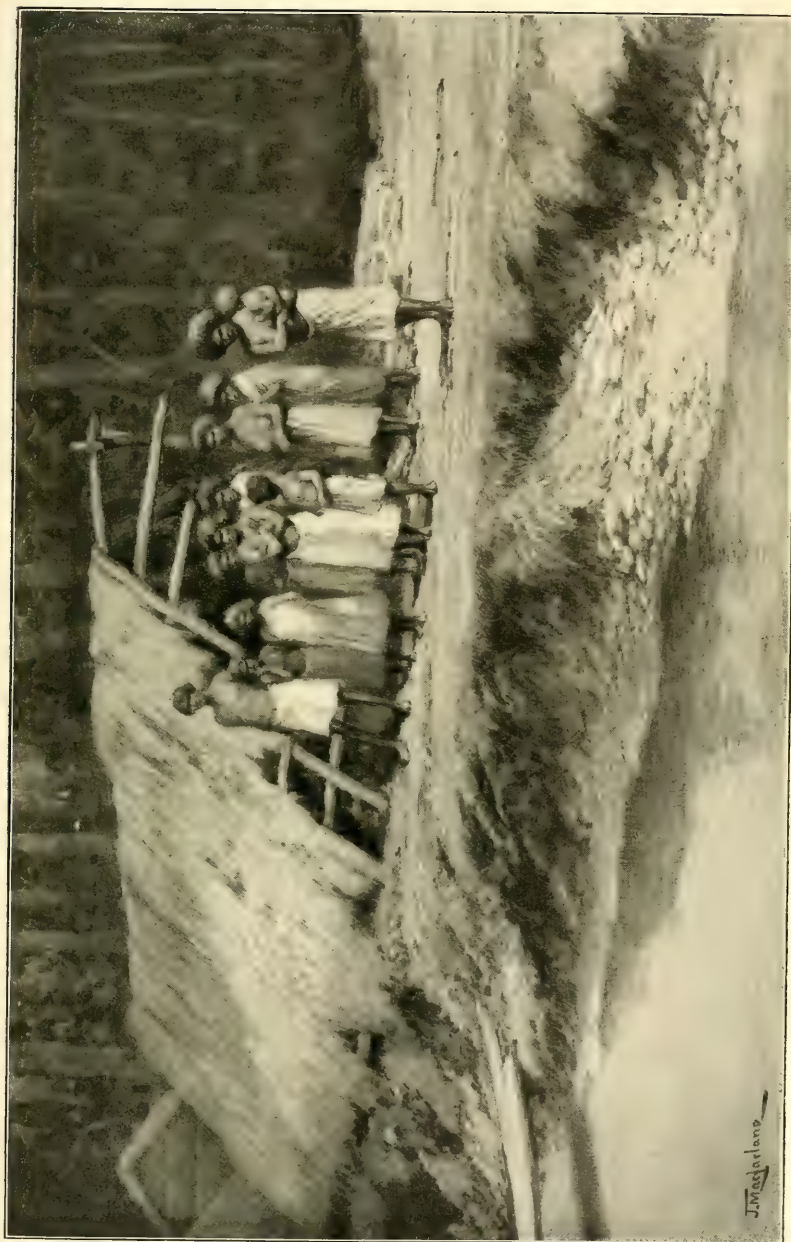
country of this terror. Very shortly news was brought to him that the elephant was in the vicinity, and armed with his '500 Express he sallied out to give the rogue battle. He came up with the tusker a mile or so from P., and the description of the engagement was given to me by one of the men who accompanied him. This man was in my employ at the time, and is so still ; and he confessed he had joined the sportsman's party in the hope of a substantial reward. He is a splendid tracker, and a trained *shikari*, and I have no reason to doubt the accuracy of his story. According to him, he took the sportsman up to the shelter of a large tree about 100 yards from the elephant, which was feeding in a hollow in full view. My man suggested a further advance before beginning hostilities, as the elephant was quite unsuspecting, but this suggestion was met with a decided refusal, and the sportsman forthwith proceeded to pump lead into the rogue. On receiving the first bullet the elephant swung round in a fury, getting another pill from the Express in his chest. With a scream of rage and pain he dashed up the opposite hill, the sportsman putting two more bullets into his body before he disappeared over the crest.

His retreat led him into my land, and a few days afterwards, being at my bungalow, Chic Mara brought me the news that the elephant was wandering in "Bison Valley," that he had demolished a Nayaka hut near the foot of the hills, the inmates escaping by rushing into the river, and that he—Chic Mara—had been chased himself on trying to approach the beast. He had crossed the river after destroying the hut, and was then in the forest on the south side of the valley, and Chic Mara described him as perfectly mad. The

following morning we started, and about two miles below the hut, or rather the sticks and grass which marked where it had stood, we came upon the tracks of the elephant made the previous night. These we followed in the hope that he had not travelled far, and I then had ocular demonstration that the elephant had good cause for his vagaries, for at intervals along the track we came on bunches of maggots that had fallen out of his wounds. What excruciating pain the poor beast must have suffered, I leave the reader to imagine. We followed the tracks till evening, but without a sight of the elephant; and these also gave ample evidence of the agony he was in. They zigzagged through the forest in the most aimless way, and often we saw where the suffering animal had rubbed against the trees in his path, in an effort to clear his wounds. The track had led us roughly in a circle, and at five o'clock, when I gave up, we were within two miles of the bungalow. The next morning I sent the trackers out, but they returned with the news that the elephant had crossed my boundary, and gone down the hills, so I had to abandon all hope of ending his misery. What his ultimate fate was, I could never ascertain.

About a year after this, another solitary tusker took up his quarters in Bison Valley. He also was dubbed a rogue, and this time there was no question that the sobriquet was deserved. At the foot of the valley there was, at the time I am writing of, a small Nayaka settlement, in which lived a patriarch named Kurria with his relations, the community consisting of five or six men, and the same number of women, with their children of various ages. These men were of great service to me in keeping me informed of the move-

ments of game at the lower end of the long valley, and during my trips to the foothills, I used occasionally to camp near their little village. One day Chic Mara came over to tell me that three of these Nayakas were out in the forest searching for roots a couple of days before, when suddenly they were charged by an elephant. One man was killed on the spot, another caught as he was trying to climb a tree, while the third had escaped and had brought the news to Chic Mara, who was then living at M.R. I started the following morning and reached the Nayaka village late that evening. There I found the Nayakas living on platforms built amongst the branches of large trees, and they told me the rogue had paid a visit to the village the night before. I sent my trackers out to try to discover his whereabouts; and on the second morning after my arrival he was marked down about three miles away. On reconnoitring the ground, I found the elephant had retired into a small and densely wooded hollow about five acres in extent. Through this ran a stream, and the continual moisture had given birth to a luxuriant growth of underwood and grass at least seven feet in height. When we followed the track into this matted cover, we were completely swallowed up, and we agreed that a further advance would be as useless as it would be dangerous. Had the elephant charged I should have been powerless, as I could not see a step in front, while even if he were not inclined for mischief, we should be bound to give him warning of our approach, as it was impossible to make our way through the tangled swamp without noise. I held a conference with my trackers, and we decided that the only plan which offered a chance of success was for me to work round to the bottom of the



Magliardone

*Drawn by L. Magliardone
From photo. by the Author*

A NAVAKA VILLAGE



hollow along the hillside above; as soon as I had reached my post, the trackers were to shout and throw stones into the cover, when probably the elephant would make down the swamp, giving me a shot. The wind was blowing across the swamp, and, working to leeward, I had no difficulty in getting to the bottom undetected. Just at this point the ground rose again in a little knoll, and by standing on the summit of this, screened by a large tree, I could see right across the patch of thick cover in which the elephant was ensconced, and all round it. The trackers were squatting at the head of the swamp, and I waved my hand as a signal that I was ready. The shouting and stone-throwing began, but the effect was the very opposite of what we intended. I heard a short scream in the cover just below me, and the elephant charged straight at the men. I could mark his progress as the underwood was mown down and swayed by his mighty bulk. Roaring to the trackers that the elephant was coming right on the top of them, I ran round the cover in the hope that he would pull up outside. My men, with the marvellous quickness that distinguishes the Nayaka at such critical moments, were all away in a flash, and the elephant held straight on. About a mile further on, he turned to the right, crossed the river, and went right away over the ridge which bounds the valley on that side. We followed to the summit of this ridge, and then relinquished the chase. I spent two more days in looking for him, but he had gone into land belonging to a Rajah, where I could not follow him.

A month or so later, coming up Bison Valley one afternoon by myself, I came right on a tusker on the path I was following. I was carrying my Express

loaded with hollow bullets ; my men with my eight bore and Paradox were some distance behind. The elephant was about two hundred yards away, and I sat down to watch him. He was pulling down the branches of a tree, and I noticed that his left tusk was considerably shorter than the right. The former was only a stump sticking out a little way from the lip : the right tusk was a good one. This tallied exactly with the description the Nayakas had given me of the rogue, and I waited impatiently for their arrival with the heavy rifle, thanking the happy accident which had given me a chance of getting even with the beast who had killed two of my favourite men. Suddenly the elephant cocked his ears and wheeled round in my direction. Now without boasting I can safely say that no man could possibly have a better set of trackers than mine ; and one of the golden rules which they and I always observe when out shooting is never to speak above a whisper in the forest, and never to speak at all when signs will answer the same purpose. But on this occasion they broke the rule, and the far-away tinkle of voices which had put the elephant on the *qui vive* now reached me distinctly. Remembering that this elephant had on the previous occasion charged at a shout, I stood up behind my tree and gently cocked both barrels of the Express. If he went for the men, he must pass me within a couple of yards, and I hoped that at that short distance both barrels into his ear would stop him ; but this time he changed his tactics, and after listening for a minute, he turned and went quickly off at right angles. What I said to the trackers when they came up need not be detailed, but Chic Mara's retort was so well deserved that it took all the sting out of my rebuke. I think one reason why I have

such an affection for this Nayaka boy is that he is so straightforward. After listening to what I said, his reply was : " The *dhoray* is right. We have acted like chattering monkeys, and deserve all we have got. But would it not have been wiser on the *dhoray's* part if, when he saw the elephant, he had come back to warn us, instead of waiting for us, and giving us the chance of making fools of ourselves ? " Chic Mara was right ; that is what I should have done ; and I was as much to blame for the fiasco as they were.

We followed on the track for some distance, but the elephant was travelling fast, and as we had to get back to the M. R. bungalow before dark, we had to let him go, and push on.

My next *rencontre* with this rogue might have had serious results, and I was fortunate in getting off scot free. I made an early start one morning from the M. R. bungalow, after bison ; and knowing that I was in for a " big fag," I left instructions for my nag to be sent to meet me in the afternoon. We had an even harder day than I anticipated, and I did not reach the rendezvous till dark. There I found the pony, and a couple of men the *syce* had brought with him, as he was afraid to come through the jungle alone ; but none of these men had had sufficient forethought to bring a lantern. The night was pitch-dark, and from the point where I met the pony to the bungalow was a journey of five miles, along an old road—a relic of mining days. Chic Mara and my trackers set to work to make a number of torches of dry reeds, and when these were ready we started. Chic Mara led the way, carrying a huge torch which lit up the road for several yards in front ; I followed on the pony, and behind me came the men, half a dozen in single file.

The pony I was riding was a stubborn, ill-tempered brute, with a mouth of iron; and once he bolted, which he often did, it was impossible to hold him. We jogged along for a mile, and I, being mounted, could see further ahead than the tracker carrying the torch, which he held high above his head. Suddenly, at a turn of the road, the light fell full on an elephant standing like a statue in the middle of the path. He was facing us, and instantly I noticed that the right tusk was much longer than the left, and the thought flashed through my mind, "the rogue." He was not more than fifteen or twenty yards away, and the next moment Chic Mara saw him too. With the one exclamation "*ānāy*," he dropped the torch, plunging us all in utter darkness, and rushed past me back along the road. Then followed a scramble which almost defies description. My pony, without an effort on my part, wheeled round on his hind-legs and bolted down the road, while I distinctly heard the elephant give vent to a loud rumble from his throat. Fast as I was going—the nag was beyond control—the men kept pace with me. That we ever reached the bottom of the road safely was due to a special interposition of Providence, for all along on the right was a big drop, in many places a regular precipice, the road turned and twisted like a snake, and I could see absolutely nothing. Just at the end of the road was a bridge over a large stream, and here I managed to pull up my pony. The men rushed up panting a moment afterwards, and as the elephant had not followed us, we stopped to decide what was to be done. We certainly were in a pretty mess. It was 9 p.m., we were five miles from the bungalow, and the way was barred by the rogue. From the bridge an

old path led up to the head of the valley where runs the main public road; and we could get home to M. R. by this road. But how it was to be reached was the question. All round us was the virgin forest, cut only by the road we could not take; while the old path had not been used for twenty years, and was now merely a dense mass of thorny creepers and undergrowth. At its best it was so steep as to be almost impracticable for a horse, while now it was impassable even for a man. But it formed our only means of access to the bungalow, and negotiate it somehow we must. Fortunately the three Nayakas had their *barcutties* with them, so they went ahead to clear the track, while we followed. Never shall I forget that night journey. Our path had to be hacked out of the matted growth of thorns for every step of the way, while the track was nothing better than a watercourse, and in many places was blocked by boulders and rubbish washed down from above. It was five in the morning before I reached the M. R. bungalow, after a fag of twenty-four hours.

An interval of three months elapsed before I came across this rogue again, and then I met him in circumstances that ended tragically for himself. I was going down to the foothills for a week's shooting, and early one morning I sent off my tent, rifles, and other impedimenta from M. R. bungalow. Chic Mara and I followed in the afternoon, and as I did not mean to look for game *en route*, having a fourteen-mile trudge to camp, I took only a shot-gun with me, on the chance of picking up a junglefowl. We had got almost to the bottom of Bison Valley, camp being then four miles distant, when a short distance above the track we were following, which was merely an elephant

path through dense virgin forest, we heard a tremendous racket—trumpeting, screaming, and roaring, with at intervals a sound as if two thick dry sticks had been struck against each other. There was no doubt as to the cause of the noise: we had happened on an encounter between tuskers. Chic Mara was by no means keen on going closer, but when I started he followed. Keeping well to leeward we made our way up the hillside, and having reached a point opposite to the din, we cautiously approached. And there, in a basin below us, we came on this battle of the giants. It was the sight of a lifetime. The combatants on one side were two tuskers, one a huge elephant with splendid tusks, the other considerably smaller, their single opponent being—there was no mistaking the short left tusk—our old acquaintance the rogue. In this unequal fight he had no chance, but that he had borne himself bravely was evident from the wounds on both his foes. The rogue himself was in a dreadful state: his head and sides were raining blood, and a crimson stream ran unceasingly down his long right tusk from a wound in his forehead. The struggle had evidently lasted some time, and all three were hard at it when we arrived. The small herd tusker attacked the rogue in front, while the big one rammed him from the side. Before these tremendous rushes he was forced to give way, and the bushes and underwood were mown down in swaths as he was pushed and buffeted down the hill. Not for a moment did the small tusker lose his position. Head to head he kept as the rogue backed and circled, while again and again the big tusker came down like a battering ram. It almost seemed as if the two herd elephants were acting on a concerted plan; and so effectual was

their strategy that the rogue was being punished without a chance of retaliation. We must have watched them for fully five minutes, when the elephants separated, as if by mutual consent. By this time the fight had taken them further down the hill, and the two herd tuskers were some fifty yards below us, while the rogue retreated into the dense jungle running down from the dip in which the battle had been fought. Every minute we expected the fight to be renewed or the herd tuskers to follow the rogue, but after a short while the former turned and came back towards us. They passed us slowly at a distance of not more than ten yards without a suspicion of our presence, and went on up the hill, where no doubt the herd were congregated. When they were out of sight, we followed the tusker's track down the hill as far as the path—it was literally a stream of blood—but he had kept on, evidently making for the river which ran about a quarter of a mile below ; and as we had still a long way to go to reach camp, we left him and pushed on.

At daylight the next morning we picked up the track, and followed it to the river. Here the rogue had turned along the bank for some distance, and then crossed at a shallow. We crossed too, and had not gone half a mile on the further side of the river when we came on the elephant, stone dead. He was lying on his right side with his trunk stretched out, and how he had lived to get so far was a mystery, for he was riddled with deep wounds.

Being keen to discover if possible the reason for this fight, I sent two men to follow the tracks of the herd elephants when I took up those of the rogue. On my return to camp, these men had already arrived,

and they said that the two tuskers had joined a large herd not very far from the scene of the fight. This herd they had followed, and had come up with the elephants on a low range of hills about two miles north of my camp. I had told them to try to get a look at the tuskers, to see how they fared after the hard knocks they had received the previous day ; but with the Nayaka's inherent dread of elephants, they had returned after locating the herd, and without getting a sight of them. So I determined to devote the next day to investigating matters myself. We made an early start, and came up with the herd about noon on the further slope of the low range. This particular stretch of country is a perfect sanctuary for elephants, and they inhabit it all the year round. The low hills lead down to a valley, about three miles long and a mile broad, covered with the grandest virgin forest imaginable. Through this valley courses the K. stream, and on its further side rise the Ghats. Hidden away in this fold of the hills, screened from all chance of disturbance by a ten-mile belt of ghat forest on its southern side, untrodden by man save perhaps by a few prowling Nayakas in the honey season, the vale lies "at the back of beyond," and I believe I am the only white man who has explored its fastnesses. Throughout the year it holds an unfailing supply of water and food, and is in every way the most perfect refuge for game that I know. At all seasons of the year it is alive with elephants, bison, sambur, pig, tigers, leopards, muntjac, and—on its western edge, where the jungle grows lighter—spotted deer ; while the high rocky hills on the north are a favourite resort of bears.

It was at the extreme eastern end of this favoured

valley (which I call the Sanctuary) that we found the herd, the first individuals we came on being a female, a calf, and a half-grown tusker. They were dozing in the shade of a large blackwood tree, and it was evident that the herd were taking their mid-day rest. We worked carefully along, parallel with their position, and lower down we saw two tuskers, but not our friends of two days before. We counted eighteen elephants in all, scattered in groups; and when we had passed the nethermost of these without a sight of the tuskers we were after, I began to think they were not in the herd at all, and that we had come on a wild-goose chase. Just as I had made up my mind to relinquish the search and return to camp, Kala stopped and whispered "*ulle wonthu dhod komb' anay wonteage iruthathay*," (there is a big tusker by himself), and the next moment I spotted him under a tree where the under-wood grew thick. He had his stern to us, and we had no difficulty in creeping up to within a dozen yards. From this distance we got a good view of him, and he was beyond doubt the big one who had given the rogue such a gruelling. So this was established—that the rogue had been killed by herd tuskers. To obtain actual proof of the motive was of course impossible; but I cannot be wrong in assuming that, attracted by the females, or for some other reason, the rogue had endeavoured to gain temporary admission into the herd, and his intrusion had been resented in the way I have described. And it seems to me very probable that a rogue—a solitary elephant with a morose temper—is a tusker who has been expelled from a herd by a combination of the other males against him, when his ill temper has become intolerable to the members. An outcast from his own herd, and

debarred from association with any other, he is thereafter forced to lead a hermit life, a sentence which does not make for an improvement in his disposition.

I have mentioned that a tame male elephant who escapes from captivity in a fit of *must*, is even more to be dreaded than a wild rogue. It is curious that the fear of man which a tame tusker always displays in so marked a degree should be converted, when he breaks away under an attack of *must*, not only into an absolute contempt for man's authority, but into a burning desire to be revenged on his captors. At the command of his keeper, a tusker will hold up his forefoot and submit to be beaten on his nails—a punishment which gives him exquisite pain—without the slightest attempt at retaliation. I have seen a keeper hammer his charge over the head most cruelly with a stick as thick as my wrist because he did not exert himself when dragging a log, and the tusker only winced and shrieked with pain at every blow. Watch a tusker at work, and the characteristic that strikes you most is the eagerness, almost amounting to nervousness, with which he strives to obey his keeper's orders. Under every condition, his fear of the man in authority over him is carried to the point of timidity. Yet let that same tusker regain his liberty in a fit of *must*, and he becomes a veritable man-killer, whose sole desire is seemingly to wreak vengeance on anyone belonging to the race of those who held him in thrall. What, then, is *must*? By most writers it is held to be merely sexual excitement; but in view of its peculiar effects on tame males, I think the correctness of this opinion is open to doubt, and that it may with at least equal reason be regarded as temporary insanity, identical with temporary

homicidal mania in a man. In support of the first theory it may be argued that the males of most, if not all, wild animals are subject to fits of excitement when their females come into season. At this time even a stag sambur or spotted deer—in captivity at least—is dangerous. But if *must* in an elephant has a sexual origin, we should expect all males to be affected at the same time, just as all stags become excited and dangerous at the beginning of the rutting season. The reply to this would be that the case of no other animal is quite analogous to that of the elephant, as the latter has no special rutting season. If I am correct in holding that the female elephant is in season all the year round, it may be that for this very reason different males are attacked at different times. But this would almost be tantamount to saying that the male comes into season, which is an obvious fallacy. From the nature of the case, a determination of the origin of these periods of excitement is a problem that defies solution: all that can be said with certainty is that they result in no permanent perversion of an elephant's gentle character, for tame males are as amenable to authority as ever when they recover, and even a male who has escaped and killed a man or men is as submissive as before, if recaptured when the fit of *must* is over.

Be the cause what it may, the fact remains that an escaped tusker suffering from *must* is a fiend incarnate. One day late in September, 1905, N. and I were journeying down to the residence of a Rajah with whom we had business. On reaching a wayside hamlet at the foot of the Ghat, the few Mappillas who constituted the population came out in a body, and warned us not to go on, as for two days

an elephant had been killing people at E., four miles ahead. We were both well mounted and safe from any attack ourselves; but from what the Mappillas told us we apprehended that our men and carts, following some distance behind, might run some risk. However, to halt where we were, with no shelter and a storm threatening, was out of the question, so we rode on, leaving word that the carts were to follow as soon as possible. A mile further on, we found a long line of carts drawn up by the roadside, the drivers of which gave us an even more lurid account of the elephant's doings. They were waiting for news that the road was clear before proceeding. They told us the elephant was on the road near E., that he had already killed eight men, and that the whole country round E. was in a state of abject terror. Making allowance for the usual native exaggeration, it was evident that an elephant had established a scare, and I feared that the tales of these excited cartmen might prevent our followers from coming on to E. That was not a pleasant prospect, for our clothes, bedding, food and everything else were in the carts behind. Keeping a bright lookout on the way, we reached E. about 2 P.M., without a sight of the elephant, and I was greatly relieved when our carts and men turned up a couple of hours later.

That something unusual had happened to disturb the wonted serenity of the little village was apparent as we rode into E. Half a dozen policemen were patrolling up and down the road in front of the shanty that is magniloquently styled the "traveller's bungalow," the village was deserted, and we could see a crowd gathered near the big building belonging to the Rajah which stands about a quarter of a mile to the

south of the road. In the verandah of the rest house a Mappilla was sitting, who told me he was a timber merchant and the owner of the elephant. From him I learnt that the scare was due to this tame tusker, who a couple of days before had killed his keeper in a fit of *must*, broken loose, and then taken to systematic man-killing. I told him we were due at N. that evening, but that I had brought a rifle with me, and on my return the following day I would try to end the elephant's murderous proclivities for good. His reply was that he valued the tusker at Rs.5000, and I was at liberty to shoot it on prepayment of the price; to which I rejoined that he knew as well as I did that an elephant who had taken to killing people could be shot by anyone, and I was quite prepared to take the consequences. Whereupon he got up and stalked away, speechless with rage. Before the carts arrived, I walked round the village. There are several large Paniya settlements in the vicinity, the inhabitants of which had deserted their houses, and were living on platforms built in trees. From the Paniyan headman, who had often accompanied me on previous shooting trips, I learnt that the elephant had retired into the jungle to the north of the village early that morning, and he promised to show me the beast on my return, as scouts were out, watching his movements. Between the rest house and the Rajah's building lie extensive paddy fields, and the Paniyan pointed out how all the young paddy had been trodden down and destroyed. For two nights the elephant had held high revel here, and had done an immense amount of damage, filling himself with the succulent rice, and pulling up and trampling far more than he had eaten.

After a hasty breakfast we started for N., a journey of eight miles. Late the following afternoon we returned to E., where we meant to stop the night, and I at once interviewed the old Paniyan as to the elephant's whereabouts. He was said then to be in the forest five miles north of the village, near the large Government reserve named M., and I arranged that the three Paniyans who usually went with me when I was shooting round about E., and whom I knew to be fair trackers, should be at the rest house at five o'clock the next morning. And to ensure punctuality, I added that a sight of the elephant would mean fifty bright rupees in their waistcloths.

True to time, I was up and ready, and so were the men ; but it was with a very rueful face that the old Maistry made his salaam. The watchers had come in during the night to say that the previous afternoon the tame elephant had come across a wild tusker of far superior size ; that in the blind rage by which he was possessed he had given battle to the intruder without a moment's hesitation ; that there had been a two hours' fight ; and that the tame elephant had been killed. And so those fifty bright rupees had vanished into the *Ewigkeit*.

At this same village I was the witness some time afterwards, while on my way to M., in company with a friend named G., of an incident which forcibly illustrated the wonderful faculty possessed by the elephant for adapting itself to a new environment—a faculty which, in my view, not only differentiates it from, but places it above, all other wild animals. We were sitting in the verandah, waiting for the coolies who were to carry our *saman* to turn up, when we heard a tremendous din of shouting and beating of tomtoms

in the forest behind the rest house, through which runs the path to M. Some of the Rajah's men were standing on the road, and they told us that a newly caught elephant was being brought in. And in a minute the procession appeared. First came fifty or sixty Paniyans beating drums and shouting at the top of their voices, and then a cluster of elephants. Round the captured elephant—a female, and the finest and biggest I have ever seen—were grouped four grand tuskers, one on either side of her head, one on either side of her stern. Two large ropes were tied round the female's neck, the ends of which the leading tuskers held in their teeth ; but these bonds were superfluous, for she walked along without making the least show of resistance, as if resigned to her fate, and quite aware of the futility of opposition : and this, though she had only been caught the previous day. Behind the group sedately walked a little calf. It was a wonderfully impressive sight. The tuskers kept their positions with the utmost precision, and strode along with a measured dignity which showed they thoroughly realised their responsibility ; while there was something very pathetic in the calm resignation of the captive. This will doubtless sound like bathos to the reader who does not know elephants : the reader who does know and love them will realise the force of what I have said.

The Rajah's elephant kraal, for which the procession was making, lay a short distance to the left of his bungalow ; and G. and I cut across the paddy flat to see the end of the performance. The permanent cage for captured elephants attached to this kraal is an enclosure just large enough to hold a big animal, and is formed of stout wooden uprights through which

wooden bars are run all round. On reaching the cage, the ropes round the captive's neck were passed through the bars opposite the end left open for her reception, and given to two of the tuskers outside the enclosure. Here for the first time the female became restive, and at sight of the cage she backed and squealed. But no time was wasted in persuasion. The largest tusker was brought round to her stern, and at a given signal the tuskers holding the ropes put their backs into a haul, while at the same moment the third tusker gave her a mighty heave *a posteriori*, and into the cage she went willy-nilly. Then the calf was pushed in, and the bars shot. Two months afterwards I was again at E., and I saw that same elephant being ridden by a little Paniyan boy who whacked her and swore at her in the most approved elephant-keeper fashion. For my special edification he put her through her paces, and in that short time she had learnt all the usual tricks.

I have referred before to the marvellous way in which an elephant can move his huge bulk through even thick jungle in perfect silence, and an incident occurs to me which illustrates this rather forcibly. I was camped in Bison Valley, and early one morning I was out with Chic Mara and two other Nayakas, following the track of a bull, when we suddenly dropped right into a herd of elephants. The first intimation we had of their proximity was a short trumpet in the thick jungle a few yards ahead, which brought us to a halt, and a moment afterwards the whole herd dashed away with a noise that made me think of the crack of doom. In those days I had not learnt to love the elephant so devotedly as to forswear taking his life, and I ran forward to try to catch a

glimpse of the herd. The way was blocked by the rapidly moving sterns of half a dozen females, but ahead I saw the gleam of a long pair of tusks, and we followed hotfoot on the track. The herd had made straight up the hill to the north of the N. stream, and here the forest is exceedingly dense, with a thick matted growth of underwood. Through this the elephants had cleared a broad trail, and as we jogged along up the steep hill as fast as possible, we were shut in on either side by an impenetrable wall of thorny scrub. We had gone a quarter of a mile, when the head and shoulders of a female were thrust through the dense screen on the right of the track, only a couple of yards in front of Chic Mara who was leading at the time, and she blew at him with such force that he fell back on the top of me, and down we both went together, while, fortunately, the elephant held on along the path the rest had taken. My own view was, and is, that Chic Mara merely recoiled at sight of the apparition, though he declared the gush of air emitted by the elephant struck him on the chest with such force that he was driven backwards; but the effect was precisely as if he had been blown back like a feather.¹ Picking ourselves up, we followed for another mile, but it was evident that the elephants were going over the ridge, out of my land, so we had to relinquish the chase. On our way back we stopped at the scene of our discomfiture to talk the incident over, and it then occurred to me to ask where on earth the elephant had come from. The easiest way to solve the riddle

¹ "Hawkeye" also records an instance of a man being "blown over" by an elephant he was following; but I think it may be taken that in this case as well the tumble was due to fright at the sudden appearance of the animal close in front. It is scarcely credible that an elephant could expire with a force sufficient to take a man off his legs.

was to carry her track back, and we found that when we first came up with the herd, this female had been standing by herself some distance to the right, so that we had got between her and her companions. From the point at which the herd had rushed away to the point at which she had so suddenly appeared, which as I have said was about a quarter of a mile, she had kept parallel with us, at a distance of only ten or fifteen yards, and as she had forged ahead, she must have passed us just before she turned into the track of the herd. Yet so silently had she made her way through that tangled jungle, that we were quite unaware of her proximity till she showed herself. From long training my own ears are fairly sharp in distinguishing jungle sounds, but the ears of my trackers are far sharper ; and to have eluded their phenomenally keen hearing for such a distance in such thick cover was a feat that no animal but an elephant could have performed.

Not only have elephants this gift of silent movement, but they can successfully negotiate dangerous ground with an ability which, having regard to their enormous bulk and weight, is nothing short of marvellous. In this respect they are probably the superior of any other quadruped. One monsoon day I was in the G. forest, when I saw three elephants, two females and a small tusker, ahead on the path. Between us lay a very deep and narrow *nullah*, down which coursed a mountain stream, now swollen into a torrent by the heavy rains. In course of ages the water had worn a channel about fifty feet deep in the friable soil, and the banks had tumbled in, till both sides of the V were almost as vertical as the walls of a room, the side nearer the elephants being much steeper and deeper

than that on which I was standing. When we first saw them, the elephants were quietly feeding, and we sat down to watch them. Soon they came leisurely along the path towards us, and I wondered what they would do on reaching the *nullah*, as we had been compelled that morning to cut steps in the banks before we could get to the bottom and up the other side. But the leading female did not hesitate. Putting out a forefoot, she gradually rested her weight on it until it had sunk deep enough to give her firm foothold, then the other foot was advanced with equal caution, and thus step by step she felt her way down, the other two elephants placing their feet with the utmost care in the tracks of the leader. On reaching the bottom, she did not seem to relish the climb up the bank on our side, and turned down along the course of the stream, all three being soon lost to view in the dense jungle. Had I not seen these elephants come safely down that slippery precipice, I would not have believed that it could have been negotiated by such a huge animal. On another occasion I happened on a herd coming down to the K. stream to drink and bathe. At the point where the leading female struck the river the bank was high and steep, and as she stood on the brink the earth gave way with her weight. She slid so calmly down on all fours that I feel sure she purposely broke down the bank to make a road for the rest, and when all the elephants had walked into the water there *was* a road broad enough for a carriage and four. I do not know the country that would stop an elephant.

As I have said already, I deeply regret having at any time caused the death of this noblest of the works of the Creator; but as these notes would scarcely be

complete, or in harmony with the scheme of my book, without some reference to elephant shooting, I will end them by a description of how I bagged my big tusker.

In September some years ago I was out after bison, my camp being pitched on a river about two miles from the old Nayaka settlement known as M. I had had excellent sport, and before going back to my estate, I determined to pay a visit to the Sanctuary—the valley I have mentioned before in this chapter—as it always teems with game: and one lovely morning I started, with Chic Mara and two Nayakas from the neighbouring village. Our route led first across a dead flat a mile broad, and then up a low range of hills, beyond which lies the Sanctuary. The formation of these hills is very singular. They are a spur from the main range of the Ghats, and run due east and west, at an elevation of about seven hundred feet above the flat, which is itself three hundred and fifty feet above sea-level. The crest of the spur is a table, with an average width of some fifty yards, so that once the summit is gained, the ridge can be traversed practically on a level from end to end. This long narrow plateau is covered with grass, and at all seasons of the year is a favourite feeding ground for elephants and bison. On their further side the hills slope down to the Sanctuary, which is another flat bisected by the K. stream, and bounded on the north by the Ghats sweeping round in a semicircle. The whole tract, comprising the flat to the south, the dividing ridge, the Sanctuary, and the Ghats towering above its northern edge, is clothed in primeval forest.

We struck the ridge about its centre, and turning to

the right, worked along the level crest with the object of reaching the head or eastern end of the Sanctuary before descending. After going half a mile, we came on the fresh tracks of a bull bison, made early that morning, which crossed the ridge and led down into the Sanctuary. Just here the jungle was lighter than usual, as a large number of huge trees—teak amongst the rest—which once grew on the ridge had been felled ages before by the Nayakas for a *ragi* clearing, the stools still standing like gaunt sentinels of their past glory. From the size of the bull's tracks he seemed a good one, and we had decided to follow, when a short distance below us, on the very line the bull had taken, we heard the sharp crack of bamboos. It did not need Chic Mara's whisper of "*anay*" to tell me that elephants were near; and the village Nayakas at once refused to come a step further. They suggested a retreat down the hill to our right, and then a wide detour to avoid the one animal they hold in awe; but I explained to them that though I could not shoot elephants, being then on land belonging to a local Rajah, I certainly would not leave without having a peep at them; and after some persuasion they consented to remain on the ridge, while I crept down towards the point where the elephants were feeding. We had just settled this programme, and I had gone a few yards on my stalk, when a tusker stepped out into the open from behind a clump of bamboos, followed a moment after by a smaller companion. I subsided behind a stump, and, quite oblivious of our presence, the pair sauntered leisurely past us at fifty yards' distance, giving us a clear view, and making for the Sanctuary obliquely down the hill. The larger tusker was a grand animal

with long tusks, and fervently I wished (I have said I am speaking of my unregenerate days) that I had found him on the land where I had, at that time, the right to shoot elephants. This wish I expressed to Chic Mara, when old Chathan quietly remarked there was no reason why I should not gratify it, as he knew the pair well, that they were inseparables in their excursions, and that they often went up the hills and over my boundary. I told the old gentleman that I would pay him a handsome reward if he brought me news of their next visit to my property, and he promised to watch them and do this.

A fortnight elapsed without tidings of any kind, when one morning Chic Mara turned up at my bungalow to say that Chathan had brought him word the previous evening that the tuskers had come up the hills into my land, and were then at the foot of Bison Valley. I had had a sharp dose of fever for a week, and was feeling quite out of trim for a fag; but the opportunity was too good to be lost, and that evening found me at M.R. bungalow, with all arrangements made for a trip after the elephants in the morning. Chic Mara had gone right away to Bison Valley, to glean the latest news of the tuskers' movements, and I was to meet him at a certain trysting-place at 9 A.M. the next day. My start was delayed an hour owing to the late arrival of the trackers, and when I reached the appointed spot, I found Chic Mara and Chathan waiting with the news that the pair of tuskers had been left feeding about a mile and a half away, and that they had two females and a calf with them. The men had spent the night in the jungle to keep a watch on their movements.

We made straight for the place, but the elephants

had moved further down the valley in the interval, and we had a long trudge, and some difficult tracking, before we came up with them about 1 P.M. I may here remark that it would naturally be supposed that a huge animal like an elephant would make a conspicuous track in any ground ; but, except in soft soil or in dense undergrowth—where the bushes are bent by his weight—it is singular what a faint trail he leaves, and it takes a good tracker to pick it out : and as elephants on the march walk in each other's footsteps, the tyro would imagine the track of a herd to be that of a single individual. Precisely the same error can easily be made in the case of a herd of bison, for the same reason. In following a herd of elephants, the sign that they are close at hand is the sudden spreading out of the tracks, as the animals separate to feed or rest.

When we caught sight of the elephants, they were at rest on a little flat a hundred yards below us. Nearest to us were a female and calf, and slightly behind and beyond them stood the big tusker, lazily flapping his ears in blissful repose ; but the other female and the small tusker were not visible. The huge trees between afforded such ample cover that a stalk was easy, and the wind was right—a gentle breeze blowing almost directly from the elephants to us. Conditions were all eminently favourable : the rest depended on myself. I had only to creep up and shoot straight. I looked at my men. The two Nayakas I had brought with me from M.R., men born and bred in the jungle, were literally shivering with fright. Chathan was an unknown quantity, but his eagerness to give the elephants a wide berth when we had met them a fortnight before convinced me that no reliance

could be placed on *him*. Chic Mara was staunch, I knew, except where elephants were concerned. Though I should have liked a man with me to carry my spare rifle in case of emergency, I felt that if I was to possess those grand tusks, I should have to venture alone. But against this Chic Mara protested vehemently—"Where the *dhoray* goes I will go," he said ; and so after some argument and against my better judgment, I consented to take him with me.

Warning the other three Nayakas to move further back and keep silent, we started on our stalk, I carrying my double eight-bore rifle, and Chic Mara my double twelve-bore Paradox. Foot by foot we crept up, till we were within thirty yards of the female and calf, and I had just marked a tree a little to my left from which I should have got a perfect shot at right angles into the tusker's ear, when from behind me—a vicarious blush mantles my cheek as I write the words—came a smothered cough ! Poor Chic Mara ! the strain on his nerves had been too great for endurance. The effect was immediate. With a shrill shriek of alarm the tusker wheeled round, and was into his stride before I could put my rifle to my shoulder ; and instead of the steady shot I had anticipated, I had to take a snapshot at his head as he moved rapidly between the tree trunks. Weak from my recent bout of fever, and I fear I must add shaky from excitement, I could see my foresight describing small circles as I covered the ear, and my shot was too far back. But the solid bullet driven by twelve drams of powder made the monster stagger, and before he recovered I hit him again in the head. This second shot almost brought him down, but he regained his feet and turned straight down the hill before I could reload.

Meanwhile an exciting scene had been enacted to my right, of which I was in blissful ignorance. As I fired my first shot, I had heard a crash close by ; but my attention had been so wholly fixed on the tusker, that all thought of the female and calf had escaped me. When I looked round, the female was far up the hill, going at her best pace, the calf was following a hundred yards behind, and Chic Mara was nowhere to be seen. Going back a little way, I picked up my Paradox, and my whistle was answered by Chic Mara from a tree. And in another tree higher up were perched the other three Nayakas. When the men came down, it took some time to restore Chic Mara to his balance ; but at last he was able to explain, and with many expressions of shame and penitence he told his story. After his overwrought feelings had found vent in that unfortunate cough, he had bolted back, and the female catching sight of him as he ran had gone for him without a moment's hesitation. He had then thrown away the rifle, and shinned up a tree with the agility of a monkey, while the elephant had kept on. The other Nayakas had climbed into their tree before the fight began, and from what they said, it was evident that Chic Mara had had a rather narrow shave.

After Chic Mara had recovered his equanimity, I suggested a move after the wounded tusker. At first the men declined to go further, but I explained that I only wanted them to do the tracking, and that they could make themselves scarce if we came up with the elephant. It needed a deal of persuasion, the men declaring it was useless to follow a wounded elephant, but eventually I got them to make a move. As a rule, pursuit of an elephant who has got away

with even the severest head wound is a hopeless proceeding, and I was feeling weak and "done," but I determined to follow for at least a mile before giving up hope.

We carried the track slowly—for the men were in the last stage of "funk"—for half a mile down to the river, when the two Nayakas who were leading suddenly exclaimed "There is the tusker!" and bolted back as if they had seen the devil himself. Chathan was not slow to follow, but Chic Mara stood by me, though his face showed plainly that he did not relish the situation. At first I could see nothing, but in a moment I spotted the tusker standing under a tree on the very brink of the river. He was almost hidden by the high grass and undergrowth, and was swaying his head from side to side as if dazed. It was evident he was more severely wounded than I had thought, and I afterwards found that one bullet had passed through his skull within an inch of the brain.

A second chance at the tusker was a wonderful piece of luck, and this time I determined not to run any risk of a *contretemps*, so I insisted on Chic Mara staying where he was, while I carried out the stalk alone. Putting the stem of a tree between myself and the elephant, I gradually crept closer, but I felt so ill that I had to stop and rest every few yards, and my progress was very slow. I reached the intervening tree, but found I was still about fifty yards from the tusker, and from my position I could not get a clear view of his head. Thirty yards to my right front stood a large benteak, and I felt that if I could only reach that, the prize was mine. Between, the forest was thick but the trees were small. I had got halfway to my goal, when a slant in the wind or a slight noise I made revealed

my presence to the tusker. This time there was no thought of flight : I heard the short trumpet that heralds a charge : and I saw the huge beast bearing down on me like a locomotive. That is the only simile I can think of to express the sensation ; it was just as if I had been standing in the track of an oncoming engine. What made the charge all the more impressive was the absence of any noise. There was no attempt at intimidation, no demonstration of any kind : the monster came on in absolute silence. When he was about twenty-five yards distant I fired low into his trunk—his head was held very high. The bullet stopped him, but the impetus of his charge carried him close up to the small tree behind which I had slipped after firing, when he turned sharp to the right. As he did so, I got a fair shot at the bump behind his ear, and down he went. When I reached him he was still struggling convulsively, and I went close up and killed him with a shot through the brain. He was a grand beast, as the measurements of his tusks will show :—

					Right Tusk.		Left Tusk.	
					ft.	in.	ft.	in.
Length...	...	...	...	...	4	11½	4	11
Length outside gum ...	...	...	...	...	2	10½	2	9
Circumference at gum	...	...	...	...	1	3	1	3
Weight...	...	...	...	...	36½ lbs.		34 lbs.	

Many a time and oft since that memorable day have I crept up to a tusker, and carefully described on his massive head all the angles and mathematical figures the books tell us the elephant hunter must mark, learn, and inwardly digest. Into each with equal care I have placed a bullet, but—I never drew trigger. Gratitude is a trait that bulks largely in the elephantine character, and some day, surely, and somewhere, I shall reap the just reward of my forbearance !

THE TIGER

Scientific name.—*Felis tigris*.

Tamil name.—Púli (colloquially pillee)

Kanarese name.—Húli.

Kurumba name.—Húli.

Nayaka name.—Húli.

NOTE.—The Kanarese, as well as the local tribes—Nayakas, Kurumbas, and Paniyans—usually refer to the tiger by the contemptuous name of nári (jackal). But it is superstitious fear, not contempt, that prompts them to use this undignified appellation.



Photo. by A. J. W. Fern, Cotacambú

THE TIGER

THE TIGER

“Tiger, tiger, burning bright,
In the forests of the night,
What immortal hand or eye
Framed thy fearful symmetry?”—*Blake*.

IN this part of South India, as apparently over the whole Peninsula, tigers can be broadly divided into two classes. First there is the cattle-lifter—always a large, heavy, handsome tiger—who has a well-marked beat round a particular line of country, where he is on more or less intimate terms with the villagers; and who takes life easily—in two senses, levying a constant tribute on the village herds. And next there is the game-killer, a small and wiry tiger compared to his cousin with the predilection for beef. He shuns the vicinity of man, and has his retreat in the forests where deer, his chief food, find a sanctuary. From this distinction it must not be inferred that the game-killer would not kill a cow if he got the chance, or the cattle-thief a deer: I merely discriminate between tigers who haunt the neighbourhood of villages and those who prefer a domain “far from the madding crowd”; and, naturally, the *principal* food of each class is that most easily obtained in its own special habitat. Naturally, too, it is the cattle-lifter who oftenest falls to the sportsman’s rifle.

There is a third class of tiger who, happily, is conspicuous by his absence in this part of the country. I refer to that fiend incarnate, the man-eater. Several instances of men being killed by tigers have come under my own observation ; but these were all accidents. I have never yet heard of a man being killed in cold blood, or of malice prepense, by a tiger on the Nilgiris or in Wynaad ; and confirmed man-eaters are undoubtedly unknown. It is difficult to account for the immunity we enjoy from these fearful scourges, if there is anything in the theory that a man-eater is usually an old tiger, or a tiger who from a wound or some other injury cannot obtain his usual prey and who consequently takes to man killing as more suited to his failing powers ; for tigers grow old here as elsewhere. Possibly one reason may be found in the sporting instincts of the local tribes in Wynaad, for when a tiger becomes aggressive in the cattle-killing line, they at once set about his destruction, and in nine cases out of ten are successful. A description of the method they employ—netting—is given at length further on. Hence a tiger who takes up his quarters near a village is given such a short shrift that he has no time to develop into a man-eater. But this argument has no application to the Nilgiri plateau, where tigers are kept down solely by shooting, falling in beats to the rifles of European sportsmen, and on very rare occasions to the muzzle-loader of a native watching over a kill. Be the reason what it may, the happy fact remains that on the Nilgiris and in Wynaad, the man-eater is unknown.

Though no local sportsman can boast—as they do in other parts of India—of “keeping up his average to a tiger per day for a fortnight,” tigers are exceed-

ingly numerous in Wynaad. The reason why so few, comparatively speaking, are bagged on these hills, is not far to seek. Not only is the tiger a water-loving animal—in the sense of a predilection for the vicinity of water—but he must have close cover for his repose during the hours of daylight ; and on the plains during the hot weather he can with certainty be marked down in the covers surrounding the scattered pools in the dry river-beds. But in Wynaad the cover is practically continuous, and the perennial streams which course down every valley furnish him with an unfailing water supply all through the year. To mark down a tiger in this part of the country is therefore a very difficult matter ; and to get a shot at him, when he is marked down, a more difficult matter still, for the covers are connected by jungle-clad ravines, down which the tiger can steal without exposing himself. Very seldom is it that a tiger lies up in an isolated *shola*, out of which he can be driven. And another factor which militates against success in tiger shooting here is the high grass which covers the hills throughout the year, save for a month or two after the annual fires. On several occasions when I have been able to make a tiger break cover, he has sneaked away in the six-foot high *dhubbay* grass, without affording me a chance. Hence it is that though tigers are as numerous, probably, in Wynaad as anywhere in India, one is seldom brought to bag ; and large bags are an impossibility. The local tribes are, as I have said, very successful in netting tigers ; but as this method is in the nature of a *tamasha* (show), and is only employed when a tiger takes up his residence in the vicinity of a village, and makes himself obnoxious, it has no appreciable effect in keeping

down the felines. To the European sportsman bent on tiger shooting, Wynaad is the reverse of a happy hunting ground. On the Nilgiri plateau, tiger shooting is an easier matter, the *sholas* being small and isolated, and the grass short. There possibly a dozen tigers are accounted for in the course of every year.

Unlike the lion, the tiger is a silent animal during his nightly prowl. He gives vent to a veritable "roar" when hit, to a much shorter but none the less disconcerting roar when charging, and to a loud "wough wough" when startled; but at other times he is not given to displaying his vocal accomplishments. I was once, however, serenaded by a tiger, and the experience was scarcely pleasant. At the summit of my estate there is a huge wild mango tree in which the large jungle bee hives year after year. In this particular year there were no less than eleven large combs dangling from the topmost branches; and these I arranged that my Nayakas (who are adepts in the art of honey stealing) should take on the first dark night. It must be eighty feet to the lowest branch; and we settled that the men should go up in the afternoon and fix their bamboo ladders, and that I should join them after dusk, as bees cannot be driven from their combs with impunity except during the dark hours. I worked round the hill on the chance of a stalk; and when I reached the tree about seven o'clock, I found the men sitting round a blazing fire built up against the trunk. They were getting their torches and other paraphernalia ready, and I was watching the preparations, when suddenly from the black darkness in front of us came the roar of a tiger, so close and so appalling, that it made every nerve in my body tingle and thrill. The beast circled round us, giving

vent to roar after roar. My men were in the last stage of fright, and I freely confess I was in a "blue funk" myself. We huddled close to the fire, and I clutched my Express with the determination to give him both barrels if he showed his face in the circle of light cast by the fire. Our relief was great when, after a minute or two, he took himself off up the hill.

The colour of the tiger is very variable, running through all shades from a light rufous fawn to a deep yellow or orange. In young animals the fur is generally darker than in adults; and as a rule the coloration of the tiger from the dense forests of Wynaad is darker than that of the tiger inhabiting the more open jungle on the plateau of the Nilgiris. But there are many exceptions to this; and moreover, as the coat of a tiger gets lighter as he grows older, it is impossible to lay down a rule. All that can be said is that a young tiger in Wynaad is generally darker than a tiger of similar age on the plateau.

In all tigers, the ground colour is striped with transverse bars of black over the head, body, and legs; and black rings encircle the tail. The under parts are white, and in old light-coloured specimens I have sometimes noticed a band of intermediate lemon colour between the ground colour of the sides and the white of the stomach. The ears are black, with a very distinctive white patch. The hair is short and glossy, being longer and thicker in the wet season than in the hot months. Round the neck the pile grows longer, giving to the full-grown male that ruff—corresponding to the far more fully developed mane of the lion—which so greatly enhances his beauty. The tail tapers symmetrically throughout its length; and, unlike that

of the lion, has no tuft at the tip. Cubs are striped from birth.

Both black and white tigers have been recorded in natural history books; but I have never heard of either a melanoid or an albino specimen on the Nilgiris or in Wynaad. I recently came across what would appear to be a well-authenticated record of a white tiger in the columns of an Indian paper. It runs thus: "A white tigress, eight feet eight inches in length (tail included), was shot recently in the Murhi Sub-Division Forest of the Dhenkanal State, Orissa. The specimen was a good one. The ground colour was pure white, and the stripes were of a deep reddish-black colour. The white colour appeared to be natural, as the tigress was in good condition and showed no sign of disease. The skin has been presented to the Rajah of Dhenkanal as a curiosity. It is being mounted, and will be kept in the palace drawing-room. The animal was shot over a buffalo kill."

The period of gestation, as observed in menagerie specimens, is about one hundred days; and usually the tigress gives birth to three or four cubs. These cubs run with the mother till almost, if not quite, full grown. As a family party generally consists of mother and cubs, and as more than three tigers are seldom seen together, it is probable that in the majority of cases not more than two cubs reach maturity. Sometimes the male parent remains with the tigress and her offspring for a long time; but such instances are exceptional. As there is no special pairing season, a tiger and his mate are found together at all times of the year. On one occasion I believe seven tigers were seen in a party on the Nilgiris: this gathering, I

imagine, must have been due to several males seeking the favour of one or more females. But having paired, tigers are monogamous.

The maximum length attained by the tiger has long been a vexed question. It is, I think, certain that most of the phenomenal measurements recorded in old books on sport were taken from the dried skins; and as during the drying process a tiger skin will stretch from six to eighteen inches, no reliance can be placed on measurements obtained from skins. But the existence of the twelve-foot tiger, which for long was held to be a myth, rests on the most unimpeachable evidence, and must now be accepted as a proved fact. In a most excellent brochure by Mr. W. S. Burke, editor of "The Indian Field," entitled "The Indian Field Shikar Book," all the evidence on this subject has been collected; and the following tigers of twelve feet and over are there recorded:—

			ft.	in.
(1)	General Sir C. Reid, K.C.B.	...	12	2
(2)	Col. G. Boileau	... ..	12	
(3)	Col. Ramsay	... ..	12	
(4)	Mr. C. Shillingford	... ..	12	
(5)	Mr. C. Shillingford	... ..	12	4
(6)	Sir Charles Reid, K.C.B.	... ..	12	3
(7)	Mrs. Laurie Johnson	... ..	12	

I have some doubt whether the same tiger is not referred to in (1) and (6), and (4) and (5). Regarding (7), Mr. Burke writes: "The twelve foot tiger which occasioned a big discussion in recent years was shot in the Jalpaiguri Duars by a lady, Mrs. Laurie Johnson, and the measurement was, if I remember rightly, vouched for by the late Mr. Pughe, I. G. of Railway Police, Colonel Evans Gordon, and others." As to

tigers between eleven feet and twelve feet, their name is legion in the book from which I have quoted.

I have seen it asked by a sceptic, "If the twelve foot tiger existed in former days, why does he not exist now?" The best answer to this is supplied by another question: "Why have the trophies of all Indian game animals, or for that matter, of game animals all over the world, deteriorated in recent years?" The deadly sporting rifles of modern days, as compared with the muzzle-loading, three-drachm weapons of our ancestors: the increasing number of men who "do" India for a few months' shooting: and the absence of all game laws till recent years—these are the reasons which make the bagging of a "record" of any kind well-nigh an impossibility in these degenerate days. It is not a matter for surprise that trophies are smaller now than in days of yore: the wonder is, in many places, that there are any trophies left!

The record for the Nilgiris, so far as I have been able to learn, is held by Mr. G. Hadfield. This tiger was bagged at Porthimund on the Kundahs, and the length over all was ten feet four inches. Another magnificent tiger has also been recorded by the same gentleman, shot near Pykara, which measured ten feet three inches. Amongst my own very modest tale of tigers, the best of which I can boast is a male measuring ten feet one inch along the curves of the body from tip of nose to tip of tail, and nine feet eight inches between uprights, driven in at the same points. A splendid specimen, by far the heaviest and most massive tiger I have ever seen, was speared at Nelliyalam a few years ago, whose length, taken by myself immediately after death, was ten feet. I have always regretted that I was unable to record other

measurements, as his muscular development was phenomenal ; but on this occasion the Chetties were averse from my touching the tiger at all, and it was only through the intervention of the local " Rajah " that I was able to run a tape along his body.

Another vexed question is the way in which the tiger kills his prey. Possibly in no matter affecting the life-history of the tiger are opinions so divided, or the adherents of the various views so positive in the expression of those opinions. Captain J. H. Baldwin, in his " Large and Small Game of Bengal," page 6, writes thus : " We often hear of the tiger striking down his prey with his paw, and doubtless he occasionally does so, but I am of opinion that this is not his usual mode of proceeding ; he more generally, I believe, springs from an ambush, or by grovelling along the ground approaches to within springing distance ; then with a mighty bound, or succession of springs, he launches himself on his victim, and seizing it with his fangs by the back of the neck (not the throat), brings it to the ground, and then gives that fatal wrench or twist, which dislocates the neck and at once puts an end to the struggle. I have examined the carcasses of many scores of bullocks killed by tigers, and have in the majority of cases found the neck broken, and the deep holes at the back of the neck caused by the tiger's fangs. Sometimes, though certainly less often, I have discovered undoubted evidence that the dead bullock had in the first instance been felled by a blow from the terrible fore-arm of the tiger."

Captain J. Forsyth, in that charming book " The Highlands of Central India," is equally emphatic on the same side. On page 270 he writes : " The tiger

very seldom kills his prey by the 'sledge-hammer stroke' of his fore-paw, so often talked about, the usual way being to seize with the teeth by the nape of the neck, and at the same time use the paws to hold the victim, and give a purchase for the wrench that dislocates the neck."

Sanderson's comments on these statements are very much to the point. On page 278 of "Thirteen Years among the Wild Beasts of India" he says: "It is evident that in the case of beasts with horns a tiger would find them considerably in the way in seizing by the back of the neck. Moreover, the beast would be borne to the ground, where killing it would be a longer affair than by dislocating its neck in the manner described [by himself]. Dislocation could not be effected on the ground as well as by turning the throat upwards, when the inertia of the beast's carcase before it is overthrown presents a sufficient purchase to effect the dislocation. That the tiger does not seize by the nape of the neck is also apparent from the fact that the gape of the largest is insufficient to take in the neck of big cattle so as to bring the fangs to the lower part of the throat where the fatal marks are always found."

Unless the tigers of Northern India kill cattle in a manner diametrically opposed to that employed by their congeners in the South, it is difficult to account for Baldwin's statement that he "examined the carcasses of many scores of bullocks killed by tigers, and in the great majority of cases found the neck broken and the deep holes at the back of the neck caused by the tiger's fangs." I am well within the mark when I say I have carefully examined the bodies of fifty cattle killed by tigers in Wynaad, and with a single exception, the

fang marks have invariably been in the throat, not at the back of the neck. That exception was a large bull buffalo; and the herdsman told me that the tiger had jumped down from a high bank under which the buffalo was standing, on to his—the buffalo's—neck. A tremendous struggle had ensued, and the buffalo shook the tiger off, but died a day or two later. There were deep holes on both sides of the vertebral column, where the tiger's fangs had penetrated.

It has never been my lot to see a tiger actually seize a bullock, though on several occasions I have spent hours with the cattle when I knew a tiger was in the vicinity, in the hope of witnessing the sight. But over and over again I have closely questioned my cattlemen, who have been spectators of a tiger's kill from a distance of a few yards, and their description tallies exactly with that given by Sanderson. One of my herdsmen particularly, a man named Juddia, who has herded my cattle continuously for fifteen years—ever since I have been in Wynaad—has been a frequent witness of the act of killing by a tiger; and what he and other cattlemen have told me is that the tiger rushes on the victim he has selected: then rising, he places a paw on either shoulder, and, seizing the bullock's throat in his jaws, gives the wrench which dislocates the neck.

Sanderson says that "the tiger makes a rush at the first cow or bullock that comes within five or six yards"; but, as I know to my cost, a tiger usually selects an animal in good condition. My experience is that in a herd comprising both old and lean, and young and fat cattle, a plump juicy cow or bullock is invariably taken. Possibly tigers in my district are greater connoisseurs of beef than tigers in other parts of the country.

I remember one evening my cattleman coming to tell me that a bullock had fallen into a pit on the road home, and had been left behind, as the two men herding the cattle were unable to get him out. This was a large bull, who had long been driven in a cart ; but I had pensioned him, as past service, and he was daily driven out with the estate cattle to graze. It was too late that evening to extricate the bull ; but I sent some coolies the next morning to pull him out of the pit. When they returned they told me that a tiger had walked all round the bull, but he was unscathed. It is possible, of course, that the tiger's clemency on this occasion was due to a full stomach ; but my own view is that he fully realised that the old scraggy bull would make very tough beef. That the tiger is particular in his choice of cattle would, I fancy, be borne out by most men who have tied up "kills" for tigers.

Having killed, the tiger—unless frightened away by the herdsmen—at once drags the carcase into the nearest cover. Sanderson writes: "A little after sunset, or sooner if the jungles are quiet, the tiger returns and drags the carcase to some retired spot, where he commences his meal"; leaving it to be inferred that the kill is left where it was struck down till the tiger's return. But my experience is as I have stated it above. If, on his return to feed, the tiger does not consider the place secluded enough, he drags the carcase further into cover before beginning his meal. Should water be at hand, the carcase will generally be carried close to this. Occasionally, after his first meal, a tiger will drag the remains further into cover, but I have never known him *hide* them, as more than one writer has stated to be his custom.

The tiger invariably commences with the hind-quarters ; and in this trait he differs from the leopard, who with almost equal certainty will begin his feed with a forequarter of his kill. The quantity of meat a tiger will "stow away," if sharp set, must be seen to be believed. I have known a hungry tiger eat both hindquarters and a considerable portion of the body the first night. After his first heavy meal he will lie up in some thick cover close to the kill ; and if undisturbed, will eat at intervals till nothing but the large bones and the contents of the stomach remain. Should the carcase be in a remote spot, he will feed even during daylight ; but if, as is frequently the case, the kill lies near a road or path on which men are moving about during the day, he eats only at night. Cubs are greedy little beasts ; and if the kill is the work of a tigress with cubs, the latter are sure to be found worrying at the carcase at all hours.

In Wynaad, with jungle everywhere, water in every valley, and an unfailing supply of food in the shape of cattle and deer, tigers do not wander very much. But in the monsoon months their peregrinations cover a far larger area than in the hot season, and they also stay out later in the day. This is a characteristic of all game in the dull cloudy weather prevalent during the monsoon. The bear as a rule never sallies out till dusk ; but in June and July I have several times seen him on the prowl early in the afternoon. Sambur seek cover at sunrise, and do not reappear till the late afternoon, except during the monsoon, when they may often be seen feeding in the open in broad day : and bison, in a similar way, forsake their ordinary habits in the wet months. In the jungle round my estate both

the Nilgiri langúr (*Semnopithecus johnei*)¹ and the bonnet monkey (*Macacus sinicus*) are common; and in the monsoon I have often been able to trace a tiger's progress over the hills by their cries till late in the day.

Tigers are arrant cowards in the presence of man. In saying this, I do not of course include the man-eater; though—judging from the accounts given by various writers who have followed up these fiends—no tiger flies more readily from an armed man than he. Nor do I refer to a wounded tiger, who is very far removed from a coward. But the ordinary cattle- or game-killer is a white-livered thief; though the “griffin,” roaming through the jungle with his heart in his mouth in the full expectation of meeting the ferocious, bloodthirsty monster of the story-books at every turn, takes some time to realise that the tiger of fact is a harmless, cowardly beast, always anxious to escape observation; and that he—the griffin—is safe anywhere with a walking stick, so far as “stripes” is concerned.

The intrepidity that a man-eater (for I presume he was of that class) will sometimes evince is shown in the following note by the Simla correspondent of the *Madras Mail* dated 10th May, 1909: “Particulars are published here of the adventures of a party of surveyors connected with the Survey of India in the Lushai Hills, adjoining Cachar, who were attacked by a tiger in the early spring. The tiger had been prowling about the camp for some time and one night seized a *khalasi* who was washing cooking-pots in a stream not twenty yards from the rest of the party. A *tindal*

¹ Following Blanford, I have called the Nilgiri langúr by this name. Jerdon gives the name *Presbytis johnei* to the Malabar langúr, a different monkey altogether.

named Nandu pluckily rushed in and tried to beat off the tiger with a stick, but it was not until the rest of the party came up that the tiger dropped the man and disappeared. It returned a few minutes later and seized Nandu, but was again beaten off, only to return presently and seize a third *khalasi*. This third attempt to provide itself with a meal was frustrated like the others and the party spent the rest of the night shouting and surrounded by fires, and at daybreak moved to a Lushai village, carrying two of the injured men, but leaving all else behind them. Mr. L. Williams shortly afterwards turned up, having heard of the straits the party were in, and did what he could for the injured men, one of whom died shortly afterwards. Armed Lushais were then sent to the camp, when they found the tents, bedding, blankets, and bags of rice torn and dragged about and a sight-ruled plane-table bearing the marks of tiger's fangs. Colonel Longe mentions the name of the surveyor, Amar Singh, who kept his men together and prevented them from leaving the wounded men; also that of Nandu Tindal, who is only slowly recovering from his injuries, for courage and good behaviour in connection with this affair."

That tigers can climb trees is a statement that has been received with much scepticism; but it is none the less a fact. Some years ago, a tiger was shot in a tree near Ootacamund, and Mr. J. H. Wapshare, who actually shot this tiger, sent the following account of the incident to the *Madras Mail*, from which paper I take it.

"I have read some correspondence lately in the *Madras Mail* about 'Tigers climbing trees.' It might be of interest to your sporting correspondents to know that when out beating for jungle sheep, pig,

&c., in 1888, beyond the Kota village, the other side of the Lawrence Asylum, Lovedale, the dogs began to bark, and my late father, who was standing on the other side of the *shola*, shouted out to me that a tiger was coming towards me. I was standing in rather high bracken, and could not see the animal, though I could see the fern moving. The beast evidently caught sight of me, for she (it turned out to be a tigress) turned round and went back into the *shola*. I ran down towards the bottom of the wood to try and cut her off in case she came out, to get into another *shola* close by. When I got half-way down the hill I heard one of the beaters call out that the tiger was up a tree. I went in and sure enough saw the brute standing on a branch high up on a tree. I got up to within fifteen yards and aimed for the head, between the eyes, as she was looking at me, and fired, but just as I did so, she turned her head and the bullet, a hollow .500 Express, grazed the side of her cheek. The shock knocked both her hind legs off the branch. When she scrambled on to the branch again, I fired the left barrel and hit her where the neck joins the body, and she dropped dead amongst the pack of dogs that were baying her under the tree. I remember we had eleven couple of dogs out, the combined packs of the late Rev. O. Dene and my father. The tigress fell right amongst them, and curiously enough not one was hurt. The party that was out on the occasion consisted of the late Rev. O. Dene, Principal of the Lawrence Asylum, my father the late Mr. Henry Wapshare, and myself. The tigress was standing on the branch facing the trunk, with all four paws close together: it was funny how she managed to turn round on the branch. A few days afterwards we went

out to take measurements of the height of the branch : I think it was thirty feet from the ground, and the claw marks on the trunk of the tree were five feet up the stem. The tree was about eight feet in circumference at about five feet from the ground and was almost perpendicular. Colonel Hunt of Madras, and Captain Dease, of the 7th Royal Fusiliers, made sketches of the tree, and I have the one made by the former officer. I think the late Mr. Dene wrote an account of this shoot to the *Madras Mail* at the time, as also did the late Mr. Nick Symons of Bombay, to the *Asian*. The tigress measured eight feet four inches and was in splendid condition. I daresay 'funk' had a lot to do with my first shot being such a bad one, as I was quite a youngster at the time. The music of the twenty-two dogs close behind her must have been too much for Mrs. Stripes ; hence her reason for climbing the tree."

A tiger, however, very rarely exercises his climbing powers ; and the sportsman in a *machan* need have no qualms on the score of safety at a height of twenty feet from the ground. I have read of one or two instances in which a man was pulled out of a tree by a tiger, but the mishap was, I think, always due to the fact that there was rising ground behind the tree, which brought the *machan* within easy springing distance. With level ground beneath, a *machan* at twenty feet is a perfectly secure perch. Further, a tiger, like most wild animals, seldom if ever looks up, his suspicion of danger being confined to the ground ; and even at a less height than twenty feet, I believe a man would be quite safe, provided he kept still after firing. When circumstances permit, it is of course well to be on the safe side in building the *machan*. Tigers frequently

score the bark of trees with their claws to a height of twelve feet or so from the ground, and the local native tradition is that their motive is to sharpen their claws. It is more probable, I think, that this is done merely in play; or possibly, as tigers do not disdain carrion, their object may be to relieve the irritation that would be set up by particles of rotten flesh lodging in their claws. On one occasion, when I was felling some jungle for a coffee clearing, I noticed a number of scratches made by a tiger in the soft bark of a large tree; and one of the Kurumbas who was felling it drew my attention to the fact that there were similar scratches on the upper side of the lowest branch, which was at least twenty feet from the ground. In this case it was evident that the tiger had climbed into the tree, the scratches being made in the act of climbing. His object in indulging in this feat of agility was a mystery.

Frequently a tiger is accompanied by a jackal, who on such occasions gives vent at intervals to the most extraordinary ululation, quite different from his usual caterwauling. The natives say he scouts ahead of the tiger to give him warning of impending danger; but this is an obvious absurdity, the tiger being quite able to look after himself. A more reasonable explanation is that the cry is one of fear: perhaps also an alarm note to warn the jungle folk of the tiger's vicinity. I once heard a muntjac give vent to a bark quite distinct from his ordinary "roar," in presence of a tiger; and it may well be that other animals change their usual cries when the foe they dread is near. It is certain that the "pheal" utters his weird howl when consorting with a tiger; whether he does so at any other time, I am unable to say. Just behind my

bungalow rises a hill, the lower part of which is covered with light jungle interspersed with glades of grass ; the summit being crowned with a thick *shola* which has always been a favourite resort for tigers, probably because my cattle are often driven out to graze on the hillside. Early one morning I was in my verandah, when I heard the peculiar cry of the "pheal" come from the opposite hill, and with my glasses I saw the jackal sitting in the grass. Calling Chic Mara, I snatched up my rifle, and we started at once. On reaching the spot where I had seen the "pheal" we heard his cry further up the hill ; and a short search showed us the perfectly fresh tracks of a tiger, which we followed up to the jungle above. On returning to the bungalow, I forgot to warn the cattlemen of the tiger's vicinity ; and on getting back after my round of the *tote*, I saw the cattle grazing all round the *shola* into which we had tracked the tiger in the morning. In the hope of seeing a kill, I started once more for the hill, determined to stay with the cattle till the evening ; but to my chagrin I met my herdsman Juddia on the way, and learnt from him that the anticipated murder had been already committed. On this morning the "pheal" was certainly accompanying the tiger ; and on several other occasions I had equally clear evidence to the same effect ; but it is needless to multiply instances.

Tiger hunting is usually conducted in the following ways :—

- (1) By driving the jungle with a line of elephants.
- (2) By driving the cover into which a tiger has been tracked with beaters or dogs.
- (3) By sitting up over a bait or a kill.
- (4) By driving the tiger into a net, and spearing him when he is induced to charge.

(5) By setting a spring gun on the road the tiger is likely to take on his return to his kill.

(6) By poisoning the carcase of the kill, strychnine being the poison usually employed.

(7) By enticing him into a trap like an exaggerated mouse-trap, baited with a cow or young buffalo.

(8) To this list must be added catching him in a pit ; for though I have never heard of pits being dug specially for tigers, I once knew an unwary tiger fall into an elephant pit.

(1) The first method is the one chiefly in vogue in Northern India ; and as the so-called "jungles" in that part of the country are apparently merely extensive plains covered with high grass and scrub, this plan is eminently successful. I have had no experience of beating with elephants, for even if the elephants to form the necessary "line" were forthcoming, it would be impossible to use them in the dense and continuous forest of Wynaad. Shooting from a *howdah* is tiger hunting *de luxe*, with a maximum of comfort and a minimum of danger to the sportsman.

(2) With regard to the second method, on the plains the usual plan is to tie up a young bull or buffalo, close to some cover which can be conveniently driven : and to beat the tiger out of this when he retires to it after killing the bait. For the reason already adduced—the continuity of the cover—this mode of tiger shooting is very seldom practicable in Wynaad. It would be feasible on the higher plateau, where the *sholas* are small and scattered, but it is not often resorted to there. The Nilgiri sportsman waits till news is brought in of a buffalo having been killed at some Toda *mund* or Badaga village : the

tiger is then tracked to cover, and driven out with dogs and beaters. Occasionally, owing to the open character of the country on the Nilgiris, a tiger is discovered sunning himself, or on the prowl for sambur, when the sportsman is afforded a chance of stalking the stalker.

In beating for tiger the very greatest consideration should be given to the safety of the men. Every man worthy of the name of sportsman would naturally regard this in the light of a duty ; but I have known instances where the beaters were sworn at, even thrashed and fined, because they refused to separate in thick, thorny jungle, in which a tiger was lying up. The European, armed with a deadly rifle, would not undertake work of this kind, or were he fool enough to follow a tiger single-handed into such cover, would only do so with the greatest trepidation. How, then, in common fairness can he expect an unarmed native to do what he would shrink from ? And care of one's men is called for not only from a humanitarian point of view. Once bit, twice shy ; and the man who ill-treats his beaters, or exposes them to grave risks, simply destroys his chance of sport thereafter.

The beaters should be directed to keep line at very close intervals. If Paniyans are employed for beating, some will come armed with spears. These are far too unwieldy to be of real service in cover ; but their possession gives the men a feeling of confidence, and they should be allowed to carry them. The beaters should be directed to collect together the moment they hear a shot, for a tiger when fired at frequently breaks back, and if wounded, any single beater in the line of his retreat would certainly come to grief, though he would not attack a group of men if they stood firm.

The sportsman should carry with him to his post a red and a white flag ; and a man should be stationed up a tree at the edge of the cover, in a position which affords him a view of the sportsman's perch. If the red flag is waved, it is a danger signal, and the stop calls to the beaters to come out of the jungle *en masse* : if the white flag is waved, the stop knows that all is safe in front, and instructs the men accordingly. This plan is useful because it is inadvisable that the sportsman should shout or make a noise himself.

In beating, unless there are enough guns to command every likely point of exit, stops are essential. These should be picked men, who can be trusted not to lose their heads at sight of the tiger and make a din that will scare him back again. Everything—especially when a tiger has to be driven up to a single gun—depends on the stops : they can make or mar a beat. If the stop does his work properly, and merely lets his presence be known by a tap or two against the trunk of his tree, the tiger will swerve but will maintain his direction ; and in this way a series of good stops can generally induce the tiger to break cover at the required point. Beating is, of course, not exempt from the perverse fate which makes “the best laid schemes aft gang agley,” but with intelligent stops a single gun will often get a shot even when the cover is large : without them, he had better spare himself the trouble of beating at all. The stops should be posted so that each one can see the next : in this way communication can be maintained without any shouting outside the cover along the whole line, and the gunner can be apprised of the tiger's movements. A wave of the hand in the direction the tiger is taking is all that is necessary.

Knowledge of the ground is as essential as a proper

bandobast on the above lines; and if the sportsman does not himself possess that knowledge, he should enlist the services of some local native acquainted with the ground to be beaten. If, as is usually the case in Wynaad, the cover is connected with another by a jungle-clad ravine, the tiger is almost certain to slink down this *nullah* when disturbed; and the sportsman's post should be at a point where he can see across. Generally the tiger will keep to one or other of the banks, not to the bed of the *nullah*; and in working his way through the cover, he will follow the lighter jungle, for a tiger no more relishes pushing through a matted, thorny thicket than does a man. Often there are paths in the cover made by deer or cattle: a tiger will assuredly take advantage of these.

The sportsman should make it an absolute rule never to fire till the tiger has passed his post, for on the observance of this rule the safety of the beaters depends. On receiving a bullet after he has passed the gun, a tiger has no knowledge of the direction from which the shot came, and he will generally obey his first impulse and bound forward; whereas, if fired at while coming towards the gunner, he at once locates the danger point, and in nine cases out of ten he turns and charges back through the men behind. If a census could be taken of beaters hurt or killed, it would, I think, be found that in the great majority of cases the *contretemps* was due to the non-observance of the rule to allow a tiger to pass before firing. It is nothing short of criminal to send a wounded tiger back amongst the men, when by the exercise of a little forbearance this danger can be avoided. And apart from the risk to the beaters, the gunner doubles his chance of bagging the tiger by waiting, for he

gets a far larger mark to aim at with a tiger broadside on than with one coming towards him, when only the chest and head form the target. Even if the tiger should break to right or left instead of directly in front, he should be allowed to get well out into the open before the shot is taken, for the reason given above.

A shooting ladder is a convenience, for at best a tree affords an uncomfortable perch, and one from which straight shooting is often difficult. Two long bamboos form the sides, and wooden rungs are let into these at intervals, being kept in their places by wedges driven through holes in the rungs where they project on either side. A few feet from the top a seat is inserted at such an angle that when the ladder is placed in a sloping position against a tree, the seat will be level. The topmost rung is lashed to the trunk, and the gunner has a comfortable stool. And as the wedges can be knocked out and the rungs removed, to be fixed in again when required, the transport of the ladder from place to place is an easy matter. In any event, whether he uses a ladder or perches himself astride the limb of a tree, the gunner should remember that he can shoot to his left with ease, but not to his right (provided of course he shoots from the right shoulder); and he should therefore always face well to the right of the position he is commanding.

I have sometimes known a beat organised directly after a tiger has killed a bull or cow out of a herd; but this is a mistake for several reasons. A kill of this kind usually occurs in the early afternoon; and the preparations for a beat forthwith must necessarily be hurried, with failure as the inevitable result. Next,

a tiger after killing generally retires to a large cover, often at a considerable distance from his kill; and as there is no time to track him to this, all the covers in the neighbourhood must be driven, affording the tiger a chance—of which he will not be slow to avail himself—of getting right away if the first jungle beaten should not be the one in which he is lying up. The necessity for a “silent” beat may be impressed on the coolies; but some of them are certain to yell at the top of their voices directly they enter the jungle. Then again, a tiger with an empty stomach is not nearly so disinclined for exertion as a tiger with a full one; and if he *is* found and driven out, the probability is that he will leave the cover like a “streak of greased lightning,” giving the gunner a difficult shot. The better plan, when a herd bullock is killed, is to have a *machan* built, and to sit up over the carcase on the off-chance of a shot. If the tiger does not show while the sportsman is watching, he will almost certainly return when the coast is clear, and indulge in a big meal. Early the next morning the trackers should follow his back route, and locate him; the gunner with the beaters joining them when the sun is well up, about 9 A.M. Now the conditions for a successful beat are far more rosy. All preparations will have been made overnight, under the sportsman’s own supervision, and nothing will have been omitted. The gorged tiger will be lying up somewhere near the kill, and his exact whereabouts will have been already ascertained by the trackers, if they are worthy of the name: and having fed heavily, he will, when roused, come slinking out in front of the men, giving the sportsman an easy shot. This last is a great desideratum, bearing in mind the danger always attendant on following up a wounded

tiger on foot. Many a beat which has proved blank owing to precipitate action might have been converted into a successful one had a little patience been exercised.

When baits are tied out, the conditions are different. Then the kill is generally made at night, and the tiger feeds at once. In such event, the beat ought of course to be organised the next morning.

(3) Most of the tiger slayers who have done their shooting from a *howdah*, and who have worked a country where elephants could be used, sneer at the man who sits up over a kill or bait. From the standpoint of a "bag," the sneer is just enough; for while the *howdah* shooter is slaying his dozens, the humble watcher over a kill may esteem himself lucky if he gets one. But, the "bag" apart, I quite agree with Sanderson that to the man who combines a love of Nature with the mere lust for slaughter (which latter is, surely, the less estimable moiety in a real sportsman's character), there is a charm, an indescribable fascination, in sitting up aloft in the soft hushed hours of evening, and meeting Dame Nature face to face. To me, the dying of the day appeals with the most extraordinary force; especially when alone in the dead silence of the jungle. Then comes

A little pause in life, while daylight lingers
Between the sunset and the pale moonrise;
When daily troubles slip from weary fingers,
And calm grey shadows veil the aching eyes.

Old perfumes wander back, from fields of clover
Seen in the light of stars that long have set;
Beloved ones, whose earthly toils are over,
Draw near, as though they lived among us yet.

Old voices call me, through the dusk returning,
I hear the echo of departed feet—

To put this sensation that steals over one at dusk with irresistible force into words is not possible, because it is a sensation that defies analysis. Longfellow, perhaps, comes nearest to an exact definition :—

The Day is done, and the darkness
Falls from the wings of night
As a feather is wafted downward
From an eagle in its flight.

I see the lights of the village
Gleam through the rain and the mist,
And a feeling of sadness comes o'er me
That my soul cannot resist.

A feeling of sadness and longing
That is not akin to pain ;
And resembles sorrow only
As the mist resembles the rain.

I once discussed this feeling, half sadness, half yearning, that grips one at sunset, with that most highly gifted, and alas! most highly-strung lady who wrote her books of verse under the pseudonym of Laurence Hope. *Her* feeling was more one of dread—yet pleasurable dread as she was careful to explain; and her theory was that this objectless fear was a survival from prehistoric times, those times when

Once, on a glittering icefield, ages and ages ago,
Ung, a maker of pictures, fashioned an image of snow.
Later he pictured an aurochs—later he pictured a bear—
Pictured the sabre-toothed tiger dragging a man to his lair—
Pictured the mountainous mammoth, hairy, abhorrent, alone—

It was at dusk, said Laurence Hope, that our ancestors ran the gravest risk from these fearsome beasts; and at dusk through fear they sought the shelter of the snugest cave they could find. And that dread of dusk having survived through all the ages, we moderns experience it in the feeling which, vainly I fear, I have tried to translate into words. She gave expression to

her theory in the poem entitled "The Jungle Fear." But, be the origin of the feeling what it may, it is there; and it lends to the vigil at dusk a charm beyond expression. I frankly admit that every time I have sat up in a *machan* over a kill for a tiger who, laughing all my elaborate precautions to scorn, does not come, I have, in the first feeling of chagrin registered a vow never to sit up again. But the sense of disappointment soon wears off, while the fascination of the evening watch remains; and the next opportunity always finds me up in my perch once more, with as keen a delight in my vigil as ever before.

But I must hie back to *Felis tigris*. Like everyone who has done, or tried to do, much shooting from a *machan*, I have racked my brains to discover why it is that this method is usually so unsuccessful. As Sanderson points out, a tiger kills to eat; and obviously it is some flaw in the arrangements made by the sportsman for his reception which prevents his return. But exactly what that something is, is a very difficult matter to determine. I have had the materials for the *machan* cut a mile off and carried to the site: have erected the platform with no sound above a whisper: have had wind and everything else in my favour—and yet no tiger. My own view is that the tiger usually makes a circuit round the kill before commencing his feed; and that the ill success attendant on *machan* shooting is due to the tiger winding the sportsman in his tree by this manœuvre, which renders all precautions nugatory. Occasionally, the tiger omits this circuit—possibly when unusually sharp set—and then, but only then, the watcher gets a shot. In the next chapter an incident is related which seems to bear out this view.

Sanderson writes : "The sportsman should seldom watch for the tiger beyond half-past eight in the evening, as if he intends to come he will have put in an appearance before that time." My experience is different. I can only recall two occasions on which the tiger did not return and feed off the carcase after I had left it ; and frequently I have watched till midnight. In some inexplicable way, the tiger makes certain that the coast is clear, and he then returns for his meal, no matter what the time may be. But I admit that when the tiger is unaware of the sportsman's presence, he will return to the kill long before half-past eight : usually just at, or a little after, dusk.

In *howdah* shooting, judging from the many accounts I have read of that form of sport, there would not appear to be much risk to the sportsman : certainly no risk grave enough ever to deter him from following up a wounded tiger. But in beating, or in shooting from a *machan*, when a wounded tiger takes cover, and has to be finished off on foot, the danger to the sportsman is a very real one ; the exact measure of that danger being determined by the circumstances of each individual case. The proper course (that is, the course which reduces the inevitable risk to a minimum) must always be decided by the sportsman himself ; and hence no rules can be laid down. But a few hints as to the precautions to be observed in following up a wounded tiger may not be out of place.

Should the tiger take refuge in thick jungle with dense undergrowth, the wisest plan is not to follow him into it at once. Naturally it costs the sportsman a very big wrench to risk losing the magnificent trophy for which perhaps he has toiled hard through many weary days ; but in jungle of this kind the odds are

so much in the tiger's favour that no man who values his life will hesitate to leave the tiger alone for the time being. In thick undergrowth, generally thorny as well, not only can the sportsman not see a step in front of him, but he must necessarily betray his presence by the noise he makes in forcing his way through ; even could he walk silently, it would be no advantage, for a wounded tiger is a very wary beast, and takes up his position in some dense thicket which allows him to see under the bushes. There, motionless as if carved in stone, he watches the advancing sportsman, crouched ready for a charge : then, with the harsh, coughing roar which makes even the boldest shrink, he is on the helpless sportsman like a lightning flash, and another " regrettable incident " is chronicled in the papers.

If the tiger after being hit lies up in such jungle as I have described, let a full hour elapse before doing anything. Then send the trackers to make a cast round the entire cover. If the tiger is still in it, leave him alone till the following morning, when the trackers should again carefully work all round the *shola*. If there are no tracks leading out, it may safely be concluded that the tiger is either dead, or so badly hit that he cannot show much fight ; and then he should be followed up. With half a dozen reliable men take up the track into the cover, and keeping well together work it out slowly. Leave tracking to the men, and with both barrels at full cock, keep your own eyes on the jungle ahead. If you detect the slightest movement in the underbush, stop instantly. Make the men throw stones at the spot where you saw the bushes move, and do not advance till you are satisfied the bush holds nothing. If the tiger charges,

let him get close up and then SHOOT STRAIGHT. Should the men stand firm, the chances are that there will be a terrific demonstration, all teeth and claws and noise, but the tiger's heart will fail him in the last few yards. My remarks presuppose that staunch men are available: to find these is, I admit, a difficult matter. Many natives will aver themselves ready to stick to the *dhoray* through thick and thin; and when the crisis comes will bolt like sheep. In this respect I am fortunate, for amongst my followers are at least six men whom I know to be absolutely reliable; men upon whom I can depend in the tightest corner. If supports of this kind are not forthcoming, leave tiger shooting on foot severely alone. These men of mine always carry short-handled spears with broad blades, which would be really useful in a scrimmage.

The weapon for work of the above nature is the "Paradox." It is handy as a shot gun, accurate as an Express up to seventy yards with the first sight, and with Holland's hollow-point bullet gives a knock-down blow. Recently I saw the tremendous effect of buck shot on a tiger at short range, and though I have not yet had an opportunity of trying it myself, I have no hesitation in saying that one barrel should be loaded with this for a charging tiger at close quarters. Where, in the excitement of a charge, a hasty shot with a bullet might miss, buck shot would be sure to catch the tiger in the head, and would crumple him up like a snipe.

If the tiger can be tracked into light jungle with little or no undergrowth, following him up is a much safer proceeding; but none the less every possible precaution should be taken to prevent an accident. In such cover a man should be sent up a tree at short intervals, and the advance delayed till he reports the ground

clear. And remember that the tiger possesses such a marvellous faculty for concealment, that no bush should be reckoned too small to hold him until it has been proved to be empty.

(4) A full description of tiger netting, as practised in Wynaad, will be found further on.

Methods 5, 6, 7, and 8 do not call for detailed remarks, as they are all unsportsmanlike, and only suited to the native *shikari*, who kills tigers solely for the sake of the Government reward. With regard to the trapping of tigers, the native shall speak for himself. The following description of a novel method employed by the natives of Dharmapuri appeared in the *Madras Mail*:—"A cage is built of stones—simply stacking stones, in the forest abounding in the wild beast. Just opposite to the entrance a small opening like an *oeil-de-boeuf* is made in the back wall. Near this opening a goat or sheep is so tied without, that it may be seen by the beast from within. To allure a beast into the cage, the bait is made to bleat by piercing thorns into its ears. The beast, believing that the bait is inside the cage, goes into it. As soon as it does so, and while it is vainly trying hard to prey upon its bait through the opening, the entrance is closed. A wooden cage wherein the beast cannot move itself right or left is then placed close to the entrance to the stony one, and the beast is then driven into it, and thus caught alive. Some hunters of these parts often catch tigers by this stratagem. They generally do so in the beginning of January so that they may play with them (instead of the *rut* bulls as is usual) on the *karinal* of the Pongul feast. Of course they make money out of it. To play with a tiger they spear a hole between the fibulæ of one of

its hind legs, while it is in the wooden cage. It is chained through the hole, brought outside, and tied to a stake. It is said it is made quite powerless when it is chained between fibulæ of its hind legs."

To that Dharmapuri correspondent, I fear I must say "Oh, fib! You lee!"

There are even odder ways of accounting for tigers than the above. I take the following from the *Asian*, the well known sporting paper :—

"A Kendrapara correspondent writes as follows from Kendrapara: 'Last Saturday the 8th inst. our town was the scene of a great stir and sensation on account of the appearance of a huge man-eater in the heart of our town. At about 10.50 A.M., Mr. Stripes entered the village, and on receipt of this news people from all parts of the town, armed with *lathis*, swords, axes, *daos*, shields, and spears, mustered strong in that spot, and a report was sent to the Sub-Divisional Officer. He was immediately on the spot on his cycle with a revolver and a gun. Mr. R. Roy, Assistant-Engineer, followed him also with pistol and a gun. Now followed a terrible scene. Mr. Roy, while searching for the brute, discovered him on the point of springing upon him. Now a wrestling began between man and beast. Mr. Roy, by no means daunted, managed to administer a severe kick to the tiger which made it roll on the ground and taking advantage of this opportunity made good his escape, not however without receiving severe injuries on his frontal muscles, in the face and the arms and in several other parts. He then discharged two shots at the tiger, one of which hit the animal, but it was reserved for our Sub-Divisional Officer, Babu N. N. Sen, to give the *coup de grâce* to our unwelcome visitor.'"

The distinction that Mr. Roy now possesses, of having played football with a man-eater, must surely be unique!

Our Aryan brother's lucubrations are always amusing when they turn on sport. One can picture the pride with which the author regarded the following masterpiece of descriptive writing, which appeared in the *Madras Mail*. It is entitled "A Royal Tiger Shot," and comes from a Russellkonda correspondent: "May I request you to publish in your daily issue a tiger of extraordinary size shot on 12th May 1904 by Mr. A. S. Laurie, the Assistant-Engineer of Russellkonda? The tiger was attempted by many a country shot, but without a success. The tiger was a shock of terror to the people of the Kalingia villages because it took away several buffaloes belonging to the villagers and subsequently came to be called a Royal tiger on account of its huge size. The country cartmen were panic stricken by the presence of the tiger in the jungle adjoining the Kallingia road and hesitated to pass the road with their carts for fear of being killed by the tiger. Somehow or other this news reached the ears of Mr. Laurie, who was ever ready and naturally delighted in such games, ventured to meet the foe. It is interesting to know how he dispatched the Royal tiger with one final shot.

"Mr. Laurie was told by the villagers that the tiger had taken away one of their buffaloes and thrown it dead on the Kurmungia Ghati road. The sooner had he (Mr. Laurie) heard of this, he lost no time and was ready on the spot waiting to welcome the Royal Master. The tiger slowly sneaked out of its den and appeared to sympathise over its dead friend (buffalo), at about 6.15 P.M. Mr. Laurie, was watch-

ing him lying in concealment about twenty yards distance. The grand master first came and stood by the dead buffalo for over three minutes, then sat in front of his dead friend like a *Pilevan* (master athletic) resting both his hands on his thighs and looked up to heaven kissing over his dead fellow. After an interval of five minutes he (the grand master) twisted his arrowy whiskers on his majestic face with both the front paws and looked to either side with a challenging attention for a little over a minute, and then commenced to give a bite with his cadaviverous teeth over the neck of his dead fellow (buffalo). Mr. Laurie who was watching in concealment the chivalrous exploits of this ferocious tiger, waited until he turn his head and thus securing a position with a well-directed aim he (Mr. Laurie) shot him dead on the spot with one blow. The sudden and powerful shot is said to have made the tiger jump into the sky as high as five yards and gasping for life fell down from there in full prostration of its length measuring in all eleven feet."

With this wondrously told yarn, before which my feeble pen hides its diminished head, I must end the chapter.

THE TIGER (*continued*)

IN his book on the Game of Bengal, Baldwin writes thus of tiger shooting from a *machan* erected over a kill :—

“ . . . the jungle tyrant, stretching himself after having lain asleep all day, issues forth, and makes straight for the spot where he well knows he will find the lifeless body of his victim of yesterday. . . . If the jungle has been disturbed since his former visit, bushes or boughs cut away, the *machan* (in which his enemies are lying ensconced) not sufficiently concealed, or the position of the bullock altered from that in which he left it, he at once suspects that all is not right, and makes off.

“ But if, on the other hand, care has been taken to make as little noise as possible in arranging the *machan*, the tree has been well selected, and the guns properly posted and concealed, the chances are that after a cautious reconnaissance, the brute at length silently emerges from the jungle, and striding up to the carcase, commences his gory repast.”

It is possible that the habits of tigers in Bengal differ radically from those of their congeners in the South ; but certain it is that the above statements have no application to the ways of tigers on the Nilgiris, either in regard to their impatience of any meddling with their kills, or to their sure return if all the

precautions mentioned have been observed. I have never hesitated to drag the carcase of a tiger's "kill" into a more favourable position when it could not be properly seen from the *machan*, or to cut away bushes and boughs which obstructed a clear view; and though I have done this many times, I can recall only two instances in which the tiger failed to return and partake of his "gory repast," though unfortunately his return was almost always *after* I had left the *machan*, when it grew too dark to see anything. And when every possible precaution has been taken in building the *machan*, so far from the "chances being that the brute will silently emerge, etc.," I would state the chances as twenty to one that the tiger does *not* return while the man with the gun is up in the *machan*, no matter what care may have been exercised. I have often puzzled over the reason for this, and have been driven to the conclusion that before approaching his kill, a tiger makes a wide circuit—probably at intervals; and does not begin his feed till his nose assures him that the wind is free from the taint of "man." In no other way does it seem to me possible to account for the fact that a tiger will always return to his kill if no human is watching over it, and will return in nine cases out of ten when the human has left his *machan* through darkness or disgust.

I remember an incident which would seem to bear out this view. A tiger had killed one of my estate cattle about ten o'clock one morning, and I went down to look at the kill. It lay in a deep secluded ravine, at the edge of a *shola* which ran up the hillside for perhaps five hundred yards. Above the *shola* grass land extended to the summit of the hill: on the other side of the hill lay a very large cover. My first

act was to find the back track of the tiger ; and, as I expected, it led into the small *shola*, the pugs being very clear in the swampy ground bordering a stream that trickled through the valley. Making a cast round the cover, I found the track leading across the grass, and into the jungle over the hill. As this was far too big to beat, I saw the only chance was to build a *machan*, and sit over the kill.

Sixty yards from the carcase, and on the hillside above it, was a very large and leafy tree whose branches bent over almost to the ground. At this season of the year the prevailing wind in the afternoon was from the N.E., and the tree grew exactly to leeward of the kill. In this tree I built my *machan*, screening it carefully all round, though the dense foliage in itself made a perfect screen. My work was finished by one o'clock ; and standing near the kill I surveyed it with great satisfaction. The *machan* was completely hidden, and never, thought I, had all conditions been so eminently favourable. The valley being quiet and remote from the estate, I expected the tiger to put in an early appearance, so I hurried home for breakfast, and was back at the *machan* by 3 P.M. Usually I prefer to sit up alone, but a sporting Kanarese cooly named Juddia begged so fervently to be allowed to share my watch, that I took him with me. This tiger had killed a fine *bandy* bullock of his a short time back, and he said he wanted to see the thief brought to book. All my cattlemen knew—or said they knew—the tiger well, for he had haunted the jungle in the vicinity of the estate for some time ; and several kills within the last month or two were declared to have been his handiwork. That he was a large tiger was evident from his pugs, and I

felt confident he was going to give me a chance of making his acquaintance.

We climbed into the *machan*, and drew the ladder up after us. Usually, the ladder to a *machan* is merely a long bamboo tied to the trunk of the tree, the branches being cut off six inches from the stem to serve as rungs. But after many unsuccessful vigils over kills, it had struck me that possibly the tiger saw this bamboo, so I had a ladder made with cotton rope, wooden rungs being inserted in the strands. For two hours we watched, but not a sound broke the stillness. Slowly the sun dipped towards the Vellari-mallais, which far away to the west were outlined in a jagged line against the sky. So clear was the air that I could see the forest running up the sides of this grand range; and the waterfalls tumbling over the cliffs above the forest line showed like narrow ribbons of white silk. At last a muntjac came out on the grass above the *shola* in front of us, and began to feed. Then from the *shola* on the other side of the hill came the deep boom of a black monkey, followed by another and another. I whispered to Juddia that this meant the tiger was moving. Another quarter of an hour passed, when suddenly the muntjac began to indulge in the most extraordinary antics. He took four or five bounds forward with all his legs rigid, giving vent at the same time to short sharp barks, quite different from his ordinary "roar." Then he stood at attention for a moment: then came another series of jumps and barks. After indulging in these gymnastics several times, he turned and bolted into the *shola* below. And the next instant the reason was apparent, for we saw the tiger come over the brow of the hill, and walk down to the middle of the grass-

covered saddle, where he sat down. With eager eyes I watched him through my glasses, and a grand brute he looked with the low sun shining full on his glossy painted hide. For full ten minutes he sat on the hillside, taking a careful scrutiny of the surrounding country : then he rose and confidently walked into the *shola*, while I breathed a fervent prayer that he would not linger longer on the road, but give me my shot by daylight. Carefully I got into the right position with just the muzzle of my Paradox pushed through the little opening in the screen, and kept my eyes glued on the kill, in the momentary expectation of seeing the striped head appear. But

“My heart sank low as the red orb set,
And the soft dark night, like a falling net,
In its unseen meshes bound me.”

Slowly the shadows deepened, till the kill became a blur, then faded into the universal gloom. Still I waited, listening intently in a silence so deep as to be painful, and determined to fire directly I heard the kill being moved. At last, at eight o'clock, I gave up in despair, and lighting our lantern, Juddia and I wended our way back to the bungalow, I repeating the vow I have so often made—and broken!—never again to be fool enough to sit up over a tiger's kill.

At sunrise the next morning I went back. The tiger had returned during the night and dragged the carcase further into the *shola*, where he had made a heavy meal. Chic Mara and I followed his track, in the hope that with half a bullock inside him he would lie up in the small *shola*; but we found he had retreated to the large cover over the hill, out of which it was impossible to beat him. Then we examined

the surrounding country, and—this is the point of my narrative—*found a track leading right round the machan*, roughly, in a circle with a radius of one hundred yards. What had happened was evident : the tiger had waited in the cover for some time, and had then made a wide circuit round the kill. Having thus brought us to windward, his keen sense of smell had doubtless warned him of the impending danger, and he had waited till the ground was clear before beginning his feed. These, in my view, are the tactics generally adopted by a tiger, and to them it is due that watching a kill proves, in nine cases out of ten, a blank.

But there *are* occasions when the tiger omits to exercise this superlative degree of caution, and then the sportsman gets his chance. I had come back one day about noon, after my morning round of the estate, and was just sitting down to breakfast, when I heard someone shouting on the hill above my bungalow ; and on sending to ascertain what the noise was about, I learnt that a tiger had just pulled down a fine cow. Hurrying to the place, I was told by the cattleman that the kill had taken place close to where he was standing, and that when he and his mate had shouted—more through fright than with any intention of driving away the tiger—the brute had charged them for a short distance, and had then gone into the jungle below. I went to the spot, which in a direct line was not more than five hundred yards from my bungalow. As the tiger had been disturbed at once, he had not in this case dragged the carcase to cover. It was lying on the open hillside. A hundred yards below was a small *shola*, which ran down the hill till it met the coffee, and then turned at right angles up a ravine, being shaped

like the letter L reversed, the ravine representing the vertical arm. Above was all open country. The cover being of such small extent, this seemed a most favourable opportunity for a beat; but first I determined to ascertain the tiger's whereabouts myself, though the cattlemen stoutly declared he had entered the cover below the kill, and was still in it, as he could not have left it without being seen by them. The up track through the little *shola*, where the tiger had stalked the cattle, was plain; but for some time the back track puzzled me, as the hill was covered with short thick grass, on which the tiger had left no imprints. At last, in a patch of soil, I found a footmark leading away, and following on, I made out that the tiger had passed through the jungle-clad ravine. Beyond this was a grass hill, and beyond this again a large *shola*—far too large to beat. Matters turned out just as I expected, for the track led into the large cover, the cattlemen having as usual lied in declaring he had entered the small *shola* below the kill when disturbed.

With this accurate knowledge of the tiger's position, I went back, and decided to build a *machan* at the edge of the jungle below. All the trees within a reasonable distance from the kill were small, but there was no other course open, so selecting the one I thought best and pointing it out to the cattlemen, I hurried back to the bungalow to collect the men. It so happened that all my coolies were working on a distant part of the estate, and by the time the men turned up, it was 3 P.M. I hurried them off, but when I went back myself, an hour later, I found that all they had done was to make a frail platform in the tree about twelve feet from the ground. No attempt had been made to screen it, and as I climbed into it, I felt that with such a very

obvious trap, there was small hope of seeing the tiger. However it was too late to do anything more, so I sent the men back to their lines, with instructions to hold their tongues till they heard me fire, or till I returned. The caution was especially necessary in this case, as a set of cooly lines lay a few hundred yards below ; and the noise that coolies make when the usual evening disputes arise on their return from work, must be heard to be believed.

I lay prone on the *machan*, to make myself as inconspicuous as possible, and read the *Five Nations* till sunset. And what a sunset ! In front, as I lay facing the ravine from which I expected the tiger, rose the cone of "Needlerock," with its helmet of granite, over which floated a plume of golden light. Away to the right, the serrated line of the Vellarimallais stood up against the western sky, and above them—as sharply separated as if drawn with a ruler—lay long horizontal bands of colour—crimson, blue, mother-o'-pearl, green, yellow, and violet. On my left the view was bounded by the green sugarloaf of Hadiabetta, and on the extreme right it was closed by the huge dome of Balasúr, shimmering through a veil of rosy mist. The valley between was wrapped in mist, each whorl snow-white below, and daintiest pink above from the reflected light of the radiant sky. Say, ye dwellers in a smoky city, entombed in your prison of brick and mortar, with never a sight of Heaven's blessed sun, and never a whiff of Heaven's fresh air, what would ye have given to change places with me ? Though the planter be perforce a hermit, verily his life has its compensations !

I was drinking in the sunset in a sort of ecstasy, when suddenly I saw the tiger on the sward between

me and the ravine. At the same moment he turned his head and gazed long at the valley below. I could hear the faint tinkle of voices, and the yelp of a dog at my bungalow. Would the grand beast turn back? Or, if he came on, could he miss seeing the naked *machan* and its occupant, especially as I was so close to the ground, and he would have to walk straight down the hill to the kill? The tiger himself ended the suspense by advancing, satisfied apparently that all was right. His great head rolled from side to side, and his forearms were bowed out by the mighty muscles which I could see rippling at every step. Then the expected happened. When one hundred and twenty yards away (I measured the distance accurately the next morning) he saw me, and stopped instantly, rigid as a statue, with his face drawn into an angry snarl as he looked up at me. It was taxing my Paradox almost beyond its powers, but the next moment the tiger would have been off, so aiming behind his shoulder at the ridge of his back, I fired. And my grand gun did not fail me, for the shot was answered by a tell-tale roar, and I heard the bullet go home. For a second I was blinded by the smoke; then I saw the tiger flying down the hillside with his tail in the air. A branch of the tree jutted across my perch in such fashion that I could not use my left barrel, and the tiger plunged into the jungle without my being able to fire another shot. I stood up and listened. A moment, and then I heard from the edge of the *shola* four or five bubbling groans, followed by a long drawn gasp: that the tiger was giving up the ghost I felt sure.

The lines were so close that I had scarcely reached the ground when I was surrounded by an eager crowd



Photo by the Author

“The next moment the dead tiger was the centre of a jabbering crowd.”

of coolies who had come up at sound of my shot. I explained what had happened, and one or two adventurous spirits were for following at once, as "the *dhoray* always kills with one bullet!!!" Flattery prompted no doubt by the thought of the "enam" to come! "Yes, go by all means," said Ugaran, my old cattleman, to the boldest of the crowd, "the tiger has a bullet in his stomach instead of half a cow, and in his present state of mind no doubt a fat young idiot will soothe him!"

At eight next morning I went to the spot. With Chic Mara I made a cast all round the L-shaped *shola*, but the only track leading out was the one which I had seen the morning before, so, dead or alive, it was clear that the tiger was still in the cover. Then I went back to the kill, and took up the track with half a dozen reliable men from the point where the tiger was standing when I fired. As far as the *shola* it was well marked with blood, but once inside, not a drop of blood could we find. However, the pugs were clear enough, and step by step we followed these, Chic Mara doing the tracking, while I kept my eyes in front. A few yards in, we reached the bank of a *nullah* down which a tiny stream trickled; and below us in the watercourse I caught sight of something yellow. Stopping the men by a sign, I crept forward, and very soon I made out the black stripes clearly. I could detect no sign of breathing, and I heard the hum of flies; but I determined to make sure, so told Chic Mara to throw a stone. It hit the tiger on the body, but there was no response. "It's all right," I shouted, "come on," and the next moment the dead tiger was the centre of a jabbering crowd. He was broadside on to

my right when I fired, and my bullet had caught him fair behind the shoulder, and traversing the body obliquely, was seated in the skin on the opposite side ; yet he had gone full a hundred yards, with quite enough fight left in him to have made short work of anyone in his course.

He was a grand brute, in the prime condition, very massive, and with enormous muscular development. Following the curves of his body he measured ten feet one inch, and nine feet eight inches between uprights driven in at tip of nose and tip of tail.

Let me give one more instance of the luck that sometimes awaits the shooter from the *machan*, even when conditions seem to be all against him—those rare slices of luck that induce him to climb into his uncomfortable perch on every opportunity, in spite of many heartbreaking vigils. One day I rode over to see a neighbour on a tea estate about five miles away ; and on reaching his bungalow, I found R. in a great state of excitement, for an hour before my arrival a tiger had killed a bullock in the swamp below the estate, about half a mile away. R. cared less for sport, I think, than any man I have ever seen ; but he was a connoisseur in cattle, and as the slain bullock was one of his best, he was keen to get the tiger, and had already sent men down with ropes and *barcutties* to build a *machan*. After breakfast we went down to look at the place. Round the swamp—at the edge of which the kill was lying—the jungle was very light, and consisted merely of large clumps of bamboo with a few slender trees. A more unpromising spot for a night watch could not be conceived, and I told R. he had better give the bullock to his coolies, and abandon all hope of getting the tiger. But he would not be

persuaded, so we set about making the *machan*. As there was no tree within shooting distance, we sent some Kurumbas to square off the top of a bamboo clump, and on this the platform was built. When finished it was plainly visible from where the kill was lying, and from the hill above, which ran sharply up from the swamp. I had intended to get back to my bungalow that afternoon, and though R. begged me to stop and sit up with him—offering me his only weapon, a repeating Winchester shot gun for which he had some bullet cartridges—the prospect was not tempting enough to make me alter my determination. That R. would have a blank vigil I felt was a foregone conclusion in the circumstances.

Chic Mara happened to be with me, and R. asked me to let him stay, none of his own men, he said, knowing much about sport. To this I agreed, and wishing R. good luck, and telling Chic Mara to be sure and show the gentleman the tiger, I rode off.

Early next morning Chic Mara turned up at my bungalow; and the previous evening's adventure had best be told in his own words. "We got up into the *machan*," said he, "and waited a little while. The *dhoray* told me to watch, and he lay down on the *machan* and smoked. Suddenly the tiger walked out from behind a bamboo clump, and sat down near the kill. I touched the *dhoray* and said, 'The tiger has come,' and the *dhoray* sat up. I said, 'Shoot, sir, shoot,' but the *dhoray* didn't shoot." Here Mara interrupted his narrative to cover a grin with his hand. "Go on," I said, "if the gentleman didn't shoot, what did he do?" "He said, 'Mara! Mara! the tiger is looking at us,' and then he lay down on his stomach in the *machan*. Then the tiger gave a 'wough wough,'

and bolted back into the jungle behind. The *dhoray* nearly fell off the *machan*, but I held him; and after a time we got down and went back to the bungalow." That was Chic Mara's marvellous story, and that it was true R. subsequently confessed. But over my next meeting with R. I will draw a veil!

The most singular *rencontre* I ever had with a tiger did not occur on the Nilgiris, and so properly it ought not to find a place in this chapter. But it was so curious in some ways that perhaps it may bear recital.

I was staying for a few days with a friend whose camp was pitched on a range of low hills covered with scrub jungle. As an inducement, my friend had told me in his letter of invitation that there were plenty of peafowl and spotted deer to be had within easy distance of his camp, and perhaps a tiger; and that if anyone could put me on to the latter, he had the man with him in the person of the most noted *shikari* on the whole range. On my arrival, I lost no time in making the acquaintance of this noted sportsman. I number amongst my *shikari* friends of the various jungle tribes in Wynaad—Nayakas, Kurumbas, and Paniyans—many curious specimens of humanity; but anything so bizarre as the mannikin to whom I was then introduced, I have never seen. He was a little wizened creature about four feet in height, with a few long matted locks of grey hair hanging down on his shoulders, and with stomach and limbs so wrinkled and shrunk that he must, if looks count for anything, have been a centenarian at least. His only clothing consisted of a dirty scrap of rag brought between his thighs and tucked into a string round his waist before and behind; and in his hand he carried a diminutive bow, while half a dozen toy arrows were

also tucked into his waist string. His face simply defies description : it must suffice to say that by comparison a monkey would be an Apollo. But H. assured me that despite his looks this little jungle-wallah was a paragon as a *shikari* and tracker ; and though on closer acquaintance I found he was not to be compared with my Nayakas in the latter capacity, I soon discovered that he really did possess an unrivalled knowledge of the denizens of his native jungles and their ways.

The weather was blazing hot, so my shooting excursions were restricted to the early morning and late afternoon. Spotted deer there were in plenty ; but all the stags I saw carried miserable heads, and for the first two days I did not fire a shot—to the dismay of my companion, who patted his corrugated stomach, and by other unmistakable signs gave me to understand that he craved for meat. He spoke a jargon I could not follow ; and as I was not such an adept in sign-language as himself, I had some difficulty in making him comprehend that I shot for trophies and not for meat. At last I managed to convey to him that my hopes were centred on a tiger, and that it would be to his advantage if he helped me to realise them. For the next two days I did not see him ; but on the third morning he turned up with the welcome news that a tiger had killed a sambur fawn, and had been marked down in a *nullah* about three miles away. From the old man's description, the place seemed an easy one to beat ; but the nearest village of junglemen was a long way off, and in a direction opposite to the cover in which the tiger was lying up ; and the *shikari* said he could not get them together till the following day, as they would all be absent from their village by

the time he reached it. He therefore proposed that he and I should go to the *nullah* at once, and take up a post on the road by which the tiger would return to the kill. The scheme did not promise much chance of success ; but as our camp was in such a quiet secluded spot, and the hills were almost uninhabited, there was a possibility that this tiger might break the usual rule, and return to his kill before dark. So we started.

It was well on into the afternoon by the time we reached the kill. The sambur, a young hind, had been pulled down close to a small *shola*, lying in a narrow valley between two hills, and had been dragged to the edge of the cover. The *shikari* said the tiger was in a larger *shola* a mile away, and that about midway between the two covers was a small strip of bamboo jungle through which the tiger would be certain to pass on his way back. In this last, he suggested we should wait. After leaving the kill we followed a deer track which led round a very steep hill, and about four hundred yards further on I got a good view of the country. From this point the track led down to the *shola* in which we were to secrete ourselves : from the opposite side of this it wound round another hill : and some distance ahead lay the *shola* to which the tiger had been tracked—a large dense cover in the fold of a hill. The *shikari* had just made me understand the position by signs, when I heard the peculiar moaning noise a tiger sometimes makes, and the next instant the beast himself emerged from the small *shola* below us. I squatted down at once, pulling the *shikari* down with me. The hillside was covered with short grass, and bare of cover of any kind ; and knowing that a tiger has the keenest sight of any animal in the world, I expected the movement to catch his eye, and to see

him turn tail at once. But to my intense astonishment, he held steadily on up the deer track towards us. He was then about two hundred yards away, and as he came straight at us, I realised just why we were invisible. We were exactly between the tiger and the westering sun, which blazed immediately above us as we sat on the grass, and blinded him every time he looked up. He made a wonderful picture as he came on at a rolling walk. Facing us so directly, his head seemed abnormally large; while the bright light striking full in his face made his eyes shine like emeralds, and threw the stripes on his cheeks into high relief. In for a penny, in for a pound, and I determined to wait till he was close before firing. When he was within fifty yards, I saw the whole of his chest; and, aiming for the centre, I gently pressed the trigger. The result was eminently satisfactory, for the tiger fell backwards with the roar that always betokens a mortal wound—made one or two desperate claws at the ground—and then went rolling down the steep hill-side. When we got down, he was quite dead, and on skinning him I found that my bullet had passed through his heart. He was a small tiger, eight feet nine inches long, but beautifully marked.

A friend named Hamilton and I were at breakfast one morning in my bungalow, when, happening to glance through the open window, I saw old Kempa Nayaka standing outside. On asking him what he wanted, to our great surprise he said, "There is a tiger down there," pointing to a small ravine three hundred yards below the bungalow. "A tiger?" I asked. "What on earth is he doing there at this time of day?" "I don't know," said Kempa, "but he is there, and the *dhoray* can shoot him if he

comes with me. My women went down into the ravine to gather firewood a little while ago, and they saw the tiger." That a tiger would lie up in broad daylight in such a small patch of jungle, and so close to the bungalow, seemed most unlikely to both Hamilton and myself; and we concluded that the Nayaka women had mistaken a stump or a log for a tiger. However, as we had nothing better to do, we decided to investigate. Hamilton would not take a rifle, so carrying my Express, we started under the guidance of the Nayaka. Just below my bungalow runs the public road; and Kempa took us down to this, and below this again for fifty yards, to the stream which courses down the valley. Here there is a small cover, not more than an acre in extent, which we skirted almost to the end, when Kempa pointed to a patch of high grass in front, and whispering "he's in that," he incontinently bolted. Hamilton also beat a retreat, and I saw him disappear round a big blackwood which grew at the edge of the *shola*, some distance behind. Here was a nice situation! Probably, had I been quite certain that Kempa's tale was true, I would have taken discretion to be the better part of valour, and executed a strategic movement to the rear as well. But as I still thought he must have made a mistake, I cocked both barrels of my rifle, and advanced step by step, keeping—as may be imagined—a *very* bright lookout ahead. I had got to within twenty yards of the patch of grass, when I saw a tiger's yellow head rise slowly above it. He bared his fangs in a fiendish grin; and so close was I that I could see the devil in his eyes. It was a tense moment; but retreat was now out of the question, so dropping on one knee, I took a fine sight below the brute's eyes.

My little rifle served me well, for the tiger fell stone dead with a bullet through his brain.

The reason why he had lain up in the grass, and probably also the reason why he had not charged on seeing me approach, was apparent when we went up to him: his near forepaw was crushed to a jelly. Otherwise he was in perfect condition, and in the prime of life; a grand beast in every way. What caused the accident to his foot I was never able to learn with certainty; but some little time afterwards I heard that a tiger had jumped into a buffalo kraal about a mile off a night or two before my adventure, and had met with a very warm reception; and I came to the conclusion that this was my tiger, and that his foot had been trodden on in the *mêlée*.

The tiger—saving always a confirmed man-eater—is by nature an exceedingly shy animal, and just as anxious to avoid man as man is usually to avoid him. Hence it is that every *shikari* who has shot much in Indian jungles is struck on looking back by the very few occasions on which he has seen a tiger when he has not actually been in search of him, though every such *shikari* has probably been often much nearer to a tiger than he guessed. Wandering in the Wynaad jungles, and especially in those jungles where deer are numerous, I have frequently noticed the perfectly fresh tracks of a tiger, without catching a glimpse of the animal itself, and that is doubtless a common experience. Many a time I have come on pugs near streams so fresh that the water was running into them, though a search for the owner was invariably futile. A tiger decamps at the very first inkling that men are in his neighbourhood, and he possesses such a marvellous faculty for escaping observation in even the

lightest cover, that—unless the sportsman is raised above the level of the ground—the chances are a hundred to one he will slink away without being seen. I remember once beating a cover with Hamilton into which one of our men had seen a stag enter earlier in the morning. It was a long *shola* in the valley between two hills, and Hamilton followed the beaters down one side while I came down the other. I had reached the bottom of the valley, and could see Hamilton on the opposite hill, not two hundred yards away. Below me was a patch of unburnt grass about three feet high ; and happening to look down at this, I saw the brindled mask of a tiger gazing at me over it. Before I could raise my rifle, he subsided into the grass. Through this ran a stream, sparsely fringed with low bushes, and I ran along the hillside above the stream, feeling confident I should get a shot at the tiger creeping through the brushwood ; but I reached the edge of another large *shola* which lay further down, without even a sight of him. We found his tracks leading into this second cover ; and to have crossed the space between the two *sholas* as he did, without exposing his striped hide, he must have crawled along with his belly on the ground. Looking at the comparatively open stretch between the *sholas*, no one would have supposed it possible for a tiger to cross without being seen.

I have, however, several times met tigers unexpectedly, the tiger on all these occasions being unaware of my approach, or not having had time to slink away unobserved ; and some of these *rencontres* are perhaps worth relating, if only to show how necessary it is for the *shikari* to be always on the *qui vive*. One afternoon I was sitting in the verandah of my bungalow,

sipping my four o'clock cup of coffee, and reading my *Mail*, and I noticed that the sambur in my preserve were unusually vocal. Opposite to my bungalow rises a lofty ridge, which culminates in Marpanmadi Peak, the highest in the district ; and from the hillside bell after bell rang across the valley, now from one point, now from another. It struck me that a tiger was about, but as looking for him in the continuous cover would be tantamount to looking for the proverbial needle in the haystack, I did not think it worth while to investigate further. Just then a cooly who was working near the bungalow ran up to tell me he had seen a stag come down the face of the hill towards the coffee. From the line the stag had taken it seemed to me probable that he would cross a swamp about half a mile away ; so, slipping a couple of cartridges into my Paradox, I gave the gun to the cooly and told him to follow me. I had gone along the cartroad for perhaps two hundred yards from my bungalow, when I heard a heavy animal galloping over the carpet of dry leaves in the thick coffee below, and the next instant a large tiger bounded on to the road, not ten yards in front of me. Our surprise was mutual ; and while we looked at each other, I put my hand behind me for the gun. But alas ! no gun was forthcoming, and in a second the tiger, with a grunt, jumped up the high bank into the coffee above. I turned to look for the cooly, only to see him "legging it" down the road for all he was worth. Roaring to him to stop, I caught him, and seizing the gun I ran along the edge of the cultivation, in the hope of cutting the tiger off some distance higher up, where the coffee joined the jungle. But the hill was steep and my progress was slow ; and when I reached the

cover, I was not surprised to find that the tiger had been quicker than I, and had entered it before I arrived. Never was the truth of the axiom "Always carry your rifle yourself" more forcibly borne in upon me than on this memorable afternoon.

One day my henchman, Chic Mara, came to tell me that on several occasions, when going his rounds, he had seen a big stag feeding near a strip of jungle at the far end of the estate. I could not spare time that day ; but a few mornings after I left my bungalow early, with the view of looking up this stag. He had taken up his quarters in a spot known locally as the "Devil's Crag." Here, at the summit of a high hill, a huge mass of rock juts out from the hillside, with a top as flat as a table, and a sheer drop of about a hundred feet to the valley below. From the base of the rock a thin fringe of scrub jungle runs down for a couple of hundred yards, and at this point the coffee begins. I reached the rock just as day was breaking, and creeping to the edge, I saw the stag feeding in the cup below. He was not more than seventy or eighty yards distant, and I knocked him over with a bullet from my Paradox. On picking himself up, he dashed into the cover, and Chic Mara and I went round to a point from which it was possible to descend into the valley. We scrambled down, and on entering the jungle found the stag at his last gasp. I finished him with another shot in the head.

It so happened that I was weeding the coffee near by at the time ; so, having secured the stag's head, I went through the strip of jungle, and sat down on a rock in the coffee to await the arrival of the coolies. About half-past seven they turned up, and I saw the

Maistry give them their lines some distance below me. I lit my pipe, and watched them as they worked up towards me. The line of coolies had advanced to within fifty or sixty yards of where I was sitting, when I heard a woman yell "aiyo, aiyo" at the top of her voice, and simultaneously I heard the short roar of a charging tiger. Glancing down I saw the beast reared up to his full height above the coffee bushes. He towered over the woman, and I fully thought she would be struck down. This *dénouement* was so unexpected that it took me a moment to realise the situation: then I reached for the gun lying at my side; but before I could pick it up, the tiger subsided into the coffee. I pushed my way towards the woman as fast as I could; but the coffee was thick and matted; and long before I could reach her the tiger had slunk away in the dense cover without exposing himself, and I never saw him again. This was a somewhat remarkable experience, for my two shots at the stag an hour before had both been fired at a distance of two hundred yards, quite close enough to startle the tiger; and as he had been lying all the time within fifty yards of me, he must have heard me talking to Chic Mara as we sat waiting for the coolies. On thinking the adventure over, it struck me that the only possible explanation of the bold front shown by the tiger—so utterly different from a tiger's usual behaviour when men are near—was that the beast was a tigress with cubs concealed close at hand; and that she probably hoped by keeping perfectly still to escape observation. I sent Chic Mara for my Kurumbas, and we made a systematic search through the coffee, and in the jungle and grass above, but no cubs could we find. The cooly, I need scarcely add, was in a state of collapse,

and it was some time before she recovered sufficiently from her fright to walk back to her lines. But there is a sovereign panacea for all a native's ills ; and after the application of the salve that evening, in the shape of five rupees, she made a remarkably quick recovery. Her escape was certainly a narrow one, and afforded striking proof that a tiger—always presuming he is unwounded—is at heart an arrant coward, and even when he makes a demonstration, has not pluck enough to carry his charge home. His heart always fails him at the last moment.

There is a public road running through my estate, connecting it with the village of Nellakota on the one side, and with the village of Devala on the other. Just at Devala it joins the great road from Ootacamund to Calicut ; and from a point two miles beyond my estate to this junction, a series of swamps lie below, and parallel with, the road. Now swamps mean green grass all the year round, and grass means Badaga villages, and Badaga villages mean buffaloes, and buffaloes mean tigers. Hence this road is a favourite promenade for both tigers and leopards ; and I seldom pass along it without seeing the fresh tracks of either or both. Frequently too the "beat" constable, when he brings up his book of a morning for signature, tells me a lurid tale of having come face to face with a tiger on this road, when on his way to meet his fellow "beat." One September a few years ago, tigers' tracks were even more numerous than usual, and the constable's tales more lurid than ever ; and I was thinking I ought by some means to plan an interview with one of the striped gentlemen who were using the road so freely. But these thoughts did not take tangible shape till the climax came one afternoon when I was out for a

stroll. At one point in this road, where four roads meet in the shape of a cross, is an enormous outcrop of rock forming the crest of the ridge which starts in front of my bungalow, and runs in a semicircle to Devala. This outcrop rises in a bold bluff with sheer sides and a jagged summit like the edge of a gigantic saw. Uprearing itself in this singular fashion amongst rounded grass hills, the mass of rock at once strikes the eye; but the most curious feature about the outcrop is that it is an isolated and unique example of the Dharwar series amidst the archæan gneiss of this part of Wynaad. Having an hour or two to spare on this particular afternoon, I determined to climb up to these rocks; and giving a hammer and a basket to a cooly, we set off. Between the road and the base of the bluff is a stretch of high *dhubbay* grass, interspersed with small trees. We were pushing our way through this, when with a loud "waugh waugh" a tiger sprang up in the grass in front, and jumped down on to the road. I caught a glimpse of him, and had time to note that he was a large and exceptionally light-coloured beast. This then was the retreat of one of the tigers who so frequently left their tracks on the road: possibly of the one who—if the police constables were to be credited—often prolonged his promenade till the sun was well up. Early next morning I sent some Kurumbas to build a *machan* in a tree on the road, and just at dusk I climbed into it. Night shooting, even under the most favourable conditions, is unsatisfactory work; and as there was at the time only a half moon, I should have been wiser—as events turned out—to have deferred my watch till she reached the full. But September is a showery month, and as the weather was fine just then, I judged it best

to get through my vigil while I could depend on a clear night.

I had taken a Kurumba with me, and as I did not expect to see the tiger till the early morning, if at all, I told my companion to take the first watch, and to rouse me when the moon reached a point which I judged would be about midnight. I had taken the precaution to have the *machan* roofed, as a protection against a possible shower, and with a soft bed spread out on the floor of the platform I was so snug that very soon I dropped off to sleep. Suddenly I woke, and looking at my watch, found it was a quarter past one. The Kurumba was curled up in a corner of the *machan*, snoring lustily; and as it was probable that he had gone to sleep soon after I did, there was a likelihood that the tiger had passed unobserved and that my trouble had all been in vain. However, being awake, I determined to watch till morning, so I lit my pipe and settled myself to keep a lookout in the direction from which I thought it likely the tiger would approach. In this position the moon was at my back; but the light was so bad owing to the trees which overhung the road on both sides, that I could only distinguish objects for a distance of twenty or thirty yards, and then very indistinctly. In the opposite direction a straight stretch of road led into a *shola* about fifty yards away. Here I had a better view, as the road was comparatively open up to the cover. The moon dipped lower and lower till she sank behind the *shola*, and this plunged the road to my right in darkness, though sufficient light filtered through the jungle to give me still a misty view down the road to my left. For a couple of hours I waited, but nothing came: not a sound broke the stillness: and I told

myself I was a fool to be perched up in a tree instead of being comfortably asleep at home, after the vows I had so often registered not to let anything tempt me again into that most aggravating of all forms of shooting—a night watch.

But softly, softly : surely there is something moving at the edge of the jungle? I clutch my rifle, and peer into the gloom, but the light is so cruelly dim that, strain my eyes as I may, I can distinguish nothing. Full five minutes pass, which seem an age : not a movement, not a sound. It must have been a tuft of grass swaying in the night wind that caught my eye. But stay ! look again : there *is* something moving at the jungle-edge ; and—ye gods !—it is coming towards me ! Ten yards from the cover the light is a little brighter, where a stray ray of moonlight strikes across the road, and on this patch of light I keep my rifle fixed. A moment : and a shadowy form glides like a ghost from the gloom into the small bright circle. Bad as the light is, I can make him out now : a tiger, and as big as a pony in the flickering wavering rays of the low moon. I cannot see the foresight of my rifle, but now or never ; and hurrah ! my shot is answered by a roar that tells it has gone home. A crash in the jungle below me : then silence. “What is it, sir ?” asks the startled Kurumba at my side, and I tell him I have put a bullet into a tiger as big as a buffalo, whereat he grins all over his frightened face.

At the first streak of dawn we climbed down and examined the ground. There was plenty of blood on the track, which we carried through the *shola*, across the swamp below, and then up the opposite hill past the village where my sporting friend Kuti Maistry holds sway. Here we were joined by half a dozen

Paniyans and the Maistry. A short distance further on the track led into a wooded ravine, and in this, though the men did their best, we lost it. Oh how I longed for my peerless tracker Chic Mara; but he was miles away looking after bison. We persevered till ten o'clock, and then I gave it up in despair. A beat was out of the question, for the cover was continuous for miles; so disappointed and tired I wended my way home.

A week or so passed, and I was sitting at breakfast one morning, when suddenly, through the open window,

the air,
Nimbly and sweetly recommended itself
Unto my gentle senses;

so sweetly that, clapping my napkin to my nose, I rushed into my bedroom with the feeling that I should be sick. From that haven of refuge I roared to my "boy" to know the reason of that most fearsome stench. The answer came back from the kitchen, "Pannia man bringing tiger skin, Sar." "Bringing what?" "Tiger skin, Sar"; and sure enough, on going into the verandah, I saw a couple of Paniyans standing outside, with a nondescript skin on which hung patches of striped fur at intervals, slung on a pole between them. My tiger! On their way to work that morning, they had been attracted by the smell, and had found the body of the tiger about half a mile from where we had given up the search. The skin was past redemption, and I had to throw it away; but it was a piece of real hard luck that the tiger had not been found earlier, for he was an enormous beast, and his pelt would have been a trophy well worth having. The hair still left on it was singularly light-coloured, from which I

judged he was the same tiger I had disturbed in my excursion to the rocks, and his teeth showed him to be a patriarch. But the tracks I had so often seen were evidently not made by him alone, for still the tigers promenade on the Devala road and still the "beat" constables get skeered as of yore. Some day, perhaps, I may work myself up to another vigil, and may it be attended with better fortune than the last.

There is, in a way, a sequel to this adventure. About a year afterwards, I was having my *chota hasri* one morning when a figure appeared in the verandah with a gun over his shoulder. I went to the door, and I saw he was in a bath of perspiration, and so excited he could hardly speak. "I am X. of the Z. Dept.," he stammered, "and I have just wounded a tiger." "Come in and have some *chota*," I replied, "and tell me all about it." "No, I can't eat," said X., "I've wounded a tiger." Bacon and eggs, however, soothed him sufficiently to allow him to tell his tale coherently. Early that morning he had started from Devala on foot, with the intention of camping close to my *tote*, as he had work to see to there. Shortly before he reached the junction of the four roads I have alluded to before, he came right on a tiger round a bend in the road. "I clapped my hands and shouted," said X., "but the tiger took no notice of me. He was lying in the middle of the road, and there he continued to lie. My carts with my camp-kit and my rifle were half a mile behind, and I doubled back as hard as I could till I met them. Then I got my rifle and returned. When I came to the bend, I went cautiously round, and there was the tiger still. This time he began to move away, and

I put a bullet into him. He jumped into the *shola* below the road, and I came on." It seemed a rather incredible story, but X. was in deadly earnest, so I got as many coolies together as I could find, and we rode back. We stopped at the point where the tiger had entered the cover, and judge my surprise when I found this was the very spot where I had wounded my tiger a year before! On examining the ground it was obvious that X.'s bullet had hit, for the blood trail was very distinct, and just below the road the tiger had fallen—the grass being beaten down, and torn up by his claws. X.'s rifle was a '256 magazine, but the wound was evidently severe. We beat the *shola* the tiger had entered, and all the other *sholas* down the long valley, but without success. At last we came to a long, narrow cover bordering a stream. We formed the beaters up at the end of this—into which the blood track led—and telling them to give us half an hour's start, we went on ahead to a place I knew, where the cover narrowed so much that we could see right across it. Here we sat for over an hour, when far up the valley we heard the beaters shouting. As the noise seemed stationary, I sent Mara back to see what was wrong, and he returned to say the Maistry in charge of the beat wanted us to go back, as the tiger was just in front of the men, who had all taken to trees. I felt sure we should have a far better chance of a shot at the narrow neck where we had posted ourselves than at the point where the beaters had stopped, as there the cover was broad and thick. But as Mara said the men would not move till we joined them—and small blame to them!—we had no choice but to go back. When we reached the beaters the Maistry came down from his tree, and told us the

tiger had jumped up in front of the men with a roar, and was there still. With Mara and the Maistry behind us, X. and I worked our way into the tangled undergrowth, but the tiger had passed on down the valley. If the beaters had only come on when the tiger was roused he could not have escaped us. As it was now late in the afternoon, we had reluctantly to abandon the search. Next day, and for two days after that, X. beat all the covers in the neighbourhood, but he never got sight of the tiger, nor did I ever hear he was found dead. Had X.'s bullet been an honest one from a proper rifle, he would have bagged his first tiger: as it was, the hollow "pencil" from his '256 Mannlicher lost him the trophy.

I recently had an opportunity of seeing the effect of a charge of buckshot on a tiger, and it was so tremendous that I am induced to relate the incident in the hope that the "tip" may be of use to those sportsmen who make a practice of following up wounded tigers on foot. I heard one day that a native living on a neighbouring estate had shot a tiger, and I went over to investigate. Personally, I hold that no practice could be more pernicious than that unfortunately adopted by some planters of allowing their native employees to shoot, first because there is little enough sport for their masters, and next because they all kill and spare not. Meat is their sole consideration, and stags, hinds, and fawns are all ruthlessly slaughtered by these butchers who own guns and are permitted by their employers to use them. A few of the local Kurumbas, by the way, are excellent shots with ball, but I have never seen one who could use a shot-gun, possibly because a bird affords such a scanty meal to a hungry jungle-wallah that it is not worth the

cost of powder and shot, in his eyes, to acquire the knack of bagging it. All the local tribes—Kurumbas, Nayakas, and Paniyans—are keen as mustard where shooting is concerned—always with an eye to meat, *bien entendu*—and are in their proper place as gun carriers and trackers ; but to allow them to shoot is, in my view at least, almost a crime. However, as I have said, some of my neighbours do not subscribe to this view ; and the native I am referring to, a Tamil cook-boy, was permitted to shoot down anything on his master's estate. As this property adjoins my sambur preserve, he had frequent opportunities of murdering sambur which strayed over the hill, and he did not neglect them. Armed with an old double smoothbore belonging to his employer, with buckshot in both barrels, he spent most of his nights crouched up on a small platform in a tree which commands the pass from my preserve ; and as his shots were always fired at very close range, any hind or fawn imprudent enough to leave the safe sanctuary of my land for pastures new paid toll with its life.

Well, one day news reached me that this man had shot a tiger, and the information turned out to be quite genuine, for on going over I found the cook-boy in question and a couple of coolies ignominiously hauling a fine tiger through the coffee by his tail. He told me he had spent the previous night in his *machan*, and that at daybreak the tiger had come slouching along the path which led under his tree, and that he had loosed off when "stripes" was about twenty yards away. On examining the body, I found that the charge (which, the man told me, contained nine pellets) had caught the tiger in the face and head. Six pellets had been driven clean through his skull into his brain,

and I cut two more out of his stomach. The man added that the tiger had died within ten yards of where he was hit, and there was no doubt that he must have been placed *hors de combat* at once. So impressed was I with the effect of this shot, that I unhesitatingly advise anyone following a wounded tiger on foot to discard his rifle, and carry a smoothbore or Paradox loaded with buckshot. A wounded tiger in the act of charging, if hit in the head as this tiger was hit, would be crumpled up and deprived of all power for mischief *instantaneously*; and I need not dilate on the handiness of a gun as compared with a rifle, when following a tiger in cover.

I had rather a curious experience during a trip to the Kundahs, which is perhaps worth recording. I was camped at the Bison Swamp, and twice I had seen a fine stag feeding at the edge of the dense forest which runs up from the low country to the cliff-line, my stalk on both occasions being spoilt by an unfortunate change of wind. Before shifting camp, I determined to look up this stag again; and I left my tent early one afternoon for his usual haunt. The formation of the country here was peculiar. Following the cliffs, the forest swept round almost in a semi-circle, and some distance from its edge rose two conical hills, about five hundred yards apart. On the summit of one, I took up my post with my *shikari*; and I sent a gun-cooly who had come with us to the top of the other, with instructions to signal to us if sambur came out on his side. From where I sat, I looked down into a forest-clad basin, which curved round behind me to my right; and I specially warned my *shikari* to keep a bright lookout behind. The hill was covered with grass about two feet high, so that

when we sat down, only our heads were visible. Between us and the edge of the jungle was a stretch of grass about one hundred and twenty yards broad. It was a very hot afternoon, and after I had been watching some time I felt myself getting drowsy. Just when I was between sleeping and waking, I heard a dull "thud, thud," like the beat of a heavy animal's feet on turf; and across my wool-gathering senses flashed the thought "there goes a sambur." But the moment my *shikari* heard the sound, he stood up, and I heard him say excitedly "Aiyah, aiyah, pillee, pillee!" (Sir, sir, a tiger, a tiger!). Instantly I was on my feet, only to see a tiger give his last bound into the *shola*. I had not time even to raise my rifle before he disappeared. The whole adventure did not occupy ten seconds; and I cursed myself heartily for having been caught napping. Had I, like the *shikari*, stood up directly I heard the galloping, I would have had a splendid shot as the tiger crossed the sward above the cover. Then I cursed the *shikari*, for the tiger was behind us, where he ought to have been keeping watch. "Master sleeping," was his reply, "*therefore* I looking out front side." The reproof was so well deserved that I could not say more. But we both wondered where on earth the tiger had come from, and how he had got so close without being observed. Later on, when the gun-cooly joined us, we were fully enlightened. He told us the tiger had come out of the jungle below and behind our post, and for some little time he squatted at the edge sunning himself. "Suddenly," said the cooly, "he began to creep up to you inch by inch on his stomach. When he got quite close, he turned, and rushed back. My liver turned to water when I thought he would spring on you from

behind." What had happened was then clear. The tiger had emerged from the jungle behind us, and, catching sight of our heads over the grass, had taken us for sambur lying down. When he discovered his mistake, the innate dread that a tiger always has of man made him turn tail and bolt back into cover. It was a narrow shave; and a piece of great good luck for one of us that the tiger realised it was a case of mistaken identity *before* he made his spring! Looking at the tracks, we found he had crept up to within ten yards of where we were sitting, serenely oblivious to the fact that we were being stalked by a tiger.

A striking exemplification of the truth of the adage that "necessity is the mother of invention" is afforded by the curious method adopted by the Chetties and Paniyans of Wynaad for compassing the death of the tigers who cause such constant havoc amongst their cattle. Being without guns, and the ability to use them if they possessed them, these aboriginal tribes have been compelled to seek some other means of destroying tigers; and they have elaborated a system of spearing them which, as I can vouch, is more effective than any of the methods usually employed elsewhere. I have not kept a record of the spearings I have seen or heard of, but I must be within the mark when I say that during the last dozen years at least fifty such spearings have come to my knowledge within a radius of ten miles of my estate. In a single week I have known as many as five; and these tigers were not members of the same family, but different individuals, speared in different places.

But before you can spear your tiger you must catch him. This is the *modus operandi*. Late one afternoon, as the village cattle are slowly wending

their way homewards from their grazing ground, there is a sudden commotion in front as they pass through a strip of jungle. The herd breaks and scatters in all directions ; and the herdsman, astride of a buffalo in the rear, knows only too well that when tale is taken at the village later on, a juicy young cow will be missing. Next morning the village *shikaris* make an early start. To find the carcase, where it has been dragged into a dense thicket, is a simple matter : and the *shikaris* note with satisfaction that only the head and shoulders are left. His striped majesty is not likely to go far after such a heavy meal. The morning's track is clearly defined, and carefully the *shikaris* follow it. As they prophesied at starting, it leads direct into the densely wooded ravine half a mile distant. Round this a cast is made, and the ground minutely examined : but there are no tracks leading out. Then the fiery cross goes round ; and by noon a hundred men have assembled, with all the tiger-nets and tom-toms from the villages round. The nets, with a picked body of men, are sent to the bottom of the ravine, and there set up in a semicircle round the edge of the jungle ; while the rest of the men form into line at the head of the valley. On either flank, between the beaters and the nets, stops are posted at short intervals to prevent the tiger breaking through at the sides. Then, with a truly infernal din, the beat begins, and if properly conducted the tiger can with certainty be driven down the *shola*. The moment he appears at the bottom, the wings of the net are brought together rapidly, and the circle made complete. This operation, of closing in the wings, is not always free from risk. On one occasion a gang of Chetties were driving a tiger not far from

my estate. Just as the beat was coming to an end, *four* tigers made their appearance; and the apparition so "flabbergasted" the men in charge of the net, that for a moment it was incautiously lowered, and all four tigers cleared it at a bound. Three broke to the right, but one came straight through the line. To the spectators he seemed to jump clean over a Chetty who was in his way. But the man fell: and on picking him up it was seen that the tiger had tapped him on the head in mid-air, and his skull was crushed like an egg-shell. Another man was mauled in this beat, and died the following day. But dangerous as the work would seem to be, accidents—it must be confessed—are rare.

By the time the net circle is made secure it is usually well on into the afternoon. Fires are lit all round, and relays of men told off to watch all night, to frustrate any attempt on the part of the tiger to escape. Singularly enough, although the tiger could jump out of the net with ease, he seldom makes any effort to do so: the novelty of his surroundings, and the noisy vigil maintained by his captors, cowing him completely.

The final operation, the spearing, is a long and interesting one. The following detailed description of one such spearing can stand as a type of all.

It was a balmy morning in April. I had just finished *chota hazri*, and had lit my pipe before starting on my matutinal round of my *tote*, when my Maistry arrived with the news that a tiger had been netted the previous evening about three miles away, and would be speared that morning. So I ordered my nag, and in half an hour had reached the place.

Had the tiger laid himself out to be trapped in the

spot best suited for a *tamasha* of the kind, he could not have chosen a more perfect one. He had been netted at the foot of a narrow wooded nullah which ran down through a half-abandoned coffee estate. The net enclosed a flat marshy space, some twenty yards wide, covered with a dense growth of wild arrowroot, from the centre of which sprang a clump of bamboos; and in this cover the tiger lay hidden. On either side the ground—sparsely dotted with coffee bushes—sloped gently down to the flat; forming a natural amphitheatre round the arena on which the drama of Man *versus* Tiger was shortly to be enacted.

Early as it was the news had spread, for a crowd of natives of both sexes and many castes, all decked out in their gayest apparel and evidently bent on a holiday, were seated in rows on the grass. And a motley crowd it was. Burly Ravuthers with shaven heads and bearded like pards in token of their Faith, lithe Kanarese from the uplands of Mysore, stalwart Paniyans with mops as woolly as a Negro's, and in full dress 'mid nodings on,' and tiny Kurumbas, keen as mustard where sport was concerned, all jostled each other for front seats. The Chetties, as over-lords—their women conspicuous in their clean fine white cloths—kept themselves apart and bossed the show.

From Matha my Maistry I learnt that the tigress (for "Stripes" ultimately proved to be of the feminine gender) had killed four cows in a cattle shed some distance away, a couple of days before, which led me to conclude she had cubs. The track led into the ravine above the net; and on the previous afternoon she had been driven down, and by four o'clock everything had been made secure.

The net invariably used is made of coir rope about

half an inch thick, with a mesh some six inches square. It is loosely attached to forked uprights eight feet or so in height ; and the first impression it gives you is that it certainly would not hold a much less powerful animal than a tiger. But in its very weakness lies its strength. If the structure were rigid—the poles firm and the net taut—a tiger could break through with ease ; but being, as it is, as limp and loose as possible, it gives with every concussion, and the rush of a tiger against it merely results in a convolution of net and tiger, in which the net always comes off best. A tiger could clear it, but, as I have said, seldom does so. One does not realise, however, at first sight how secure the net really is ; and I can vouch that when a tiger, mad with rage and pain, makes a rush against it, and you happen to be standing in the line of his charge, it is impossible to resist the impulse to “shin out of Galilee” as quickly as possible. I have seen a leopard break through ; but that was owing entirely to a defect in the net, the strands at the point of impact being quite rotten. A mighty exciting five minutes we had on this occasion, for the beast was speared in the open. But in the majority of cases the danger is much more apparent than real.

The spearing is usually carried out under the auspices of some local magnate, who provides the principal performers with a feast. Over this particular *tamasha* a neighbouring *jenmi* or landholder presided ; and when I arrived, preparations for the picnic were already advanced. Several large copper cauldrons were smoking over impromptu fireplaces on the flat below ; and a yellow mess, boiling and bubbling in a huge earthen pot, denoted “curry” on a Brobdingnagian scale. The spears, weapons with long steel

heads and handles of blackwood twelve feet in length, were ranged against the net, while their owners squatted round watching the culinary operations with hungry eyes. By eleven o'clock the feast was ready, and every Paniyan was served with a huge ladleful of rice and curry on a plantain leaf. And in less time almost than it takes to tell it, the doughty warriors had got outside of their feed, and were clamouring, like Oliver Twist, for more.

Meanwhile several ladies had arrived, and seated on the crest of the hill, formed an appreciative audience. Time dragged on ; but still the " Rajah " did not put in an appearance, and etiquette made his presence necessary before the ball could be set rolling. Those of us who had come early, expecting an early start, were hungry as hawks ; and I heard many an anathema, " not loud but deep," directed against his sable majesty. At last, about 2 P.M.

" An outburst wild of trumpeting and drumming
Told us his majesty the king was coming."

Down the hill he came with stately tread, attended by his retinue, and looking, I have no doubt, in his own estimation and that of the crowd, " every inch a king." One herald carried an antediluvian sword, and another an equally antiquated Brown Bess. A rough *pandal* had been erected for the " Rajah's " accommodation a short way up the hill ; and when he reached this, " bang ! " went the blunderbuss, and " over " went the shooter like a rabbit. We roared with laughter ; but the native crowd was duly impressed, and even regarded this little incident as shedding an added lustre on the " Rajah's " regal head. Now, we thought, —for we had been waiting since 8 A.M.—*now* the fun will begin : but the beginning was a long way off yet.

When the "Rajah" had climbed into his *pandal*, and the crowd had made obeisance, four short sticks were thrust into the meshes of the net. Then a passage was cleared, and an old man, naked save for a loin cloth, stepped into it. He began by striding up and down, muttering and swinging his arms. Gradually his steps became quicker and his gestures wilder, until he had perambulated himself into a fit. With his *kodumai* streaming behind him as he jerked his head violently up and down, he shrieked and raved like a man possessed by a legion of devils. Then he rushed up to the net, and shook it with all his might; and drawing out one of the sticks, after some more perambulation he flung it into the enclosed space. Having completed this performance, he threw himself into the arms of a bystander utterly exhausted, foaming at the mouth, and with every muscle in his body quivering in the most extraordinary way. This muscular contortion was the most curious part of the weird performance—whereof this is the interpretation. The performer was supposed to be possessed (*was* possessed for aught I know to the contrary) by the hunting god, and the throwing of the stick into the net while under the god's influence signified that the deity was propitious, and would give his votaries "good hunting." Had the local St. Hubert not impelled the performer to throw the stick, no attempt would have been made to spear the tigress that day, nor until the divinity declared that the right moment had arrived. They do say that the god is never unpropitious when the presiding magnate is a big enough swell. Be that as it may, it was an uncanny performance; and, if only a bit of acting, was uncommonly well done. All through, the crowd kept up a running accompani-

ment with loud shouts of "oh-oh-oooooh," "oh-oh-ooooooooh." Four times was this incantation repeated by different men, until all four sticks had been thrown into the net; and then, after nine hours of weary waiting, the real business of the day began.

Amidst a tremendous din of tom-toms, cholera horns, and shouts, the spearmen ran three times round the net, carrying their spears aloft; while several long bamboos were cut. Then the spears formed in close order round the net at the "ready," and with shouts of "va, va" (come, come) the bamboos were thrust into the cover at various points. Twice the tigress showed herself, but retired before a spear could reach her. She was evidently cowed and confused by the uproar. For some time she sulked, till a Paniyan thrust his bamboo into a thick bit of underwood. We saw a long lithe body flash through the green of the arrowroot; and with a roar the tigress came open-mouthed at the net. Two spears thrust deep into her neck made her turn, and she retired once more into the middle of the enclosure, where she lay growling and biting at the bamboos; but do what they would the Paniyans could not make her face the music again. It was getting late, and the headmen held a consultation. Evidently the net encircled too large a space, and it was decided to reduce this by closing in the net all round. But the dense undergrowth formed an obstacle, and it puzzled me to know how the decision was to be carried out. Then the Paniyans did an extraordinarily plucky thing. Half a dozen of them entered the net, and with their *barcutties* rapidly cleared away the bushes over a space of fifteen or twenty feet inside the net all round, protected (save the mark!) from a charge while engaged in this risky

work only by a man on either flank armed with a spear. If ever men carried their lives in their hands, those Paniyans did. Just consider : a wounded tigress, driven frantic by an hour's bullying and badgering, opposed by a handful of half-naked natives, utterly unarmed save for a couple of spears which—by reason of their unwieldy handles—would have been worse than useless in the event of a charge ! We call the European sportsman "plucky," when—carrying a rifle which at least makes the odds equal, and generally backed up by a comrade or two equally well armed—he follows up a wounded tiger on foot. What term, then should be applied to the conduct of these Paniyans ? When I say it was beyond measure the most brilliantly plucky, foolhardy thing that I have ever seen I have not said half enough. When the net was contracted, and the tigress again induced to charge, we found that these men had been within *a yard* of where she was lying ! Truly the "sweet little cherub" keeps just as careful watch and ward over fools as over sailors. My Maistry had gone into the net with the others ; and when the spearing was over, I asked him if he had not felt afraid. He merely laughed and said, "Not a bit : the god took care of me."

The net was now closed in, and the end soon came. Another prod or two with the bamboo, and again the tigress charged. This time a spear was driven deep into her neck, and before she could wriggle clear, a dozen more were thrust into her body. A gasp or two, and she was dead. But the men still kept prodding away. Excitement had worked them up to such a pitch that they more resembled devils let loose than humans ; and like devils they pushed and struggled and fought in their eagerness to blood their spears.

At last, when the tigress was riddled like a sieve with spear thrusts, she was pulled out of the net for the "Rajah's" inspection; and while he gazed solemnly at her, the bystanders dipped their fingers in the blood and smeared it over their foreheads and the foreheads of their children, to imbue them with a tiger's courage and strength. I taped the tigress as she lay. She measured eight feet three, not a large tigress; but an exceedingly handsome one, and in the pink of condition. Her skin of course was utterly ruined. As I had conjectured, she was in milk: but though I searched for two days, I could not find the cubs.

When the "Rajah" had completed his inspection, the whiskers—potent charms to the native mind everywhere—were plucked out, formally presented, and graciously accepted. Then he departed amidst a din of tom-toms and horn-blowing. Meanwhile a rope was hitched round the tigress's neck, and a dozen men ignominiously dragged her up the hill to the road above, while we followed to see the last act of the performance. Half a mile further on an open spot just off the road was selected, and here a long bamboo was placed across two forked uprights, about five feet high, while the tigress's face and paws were chopped off for the sake of the teeth and claws. Then three strong bands of fibre were run at intervals through the skin over the spine, and she was tied to the bamboo, her tail being straightened out and tied behind her to complete the effect. And there, in the sight of all men, she was left to rot.

As we left in the gathering dusk, the Paniyans—men and women in separate groups—had begun the dancing and singing which would go on the livelong night round the ghastly carcase.

On many occasions I have seen tigers die even more gamely than this one : and just as often, perhaps, I have seen them die like sheep. I have chosen this particular spearing as affording an example of the sport that may usually be expected. But *is* tiger-spearing "sport"? Cruel it certainly is, but then all sport is cruel in the sense that it can only be enjoyed at the cost of animal life. And if, as I take it, real sport must involve some personal risk to the sportsman, tiger-spearing certainly merits the name. For though the actual spearing is devoid of danger—the tiger when once in the net having practically no chance of escape—still the netting of the tiger is a dangerous service ; and when the net encloses too large a space, to close it in is a fearfully risky proceeding. So, "taking one consideration with another," I think tiger-spearing as conducted in the Wynaad is fairly entitled to rank as Sport—with a capital S.

THE LEOPARD

Scientific name.—*Felis pardus*

Tamil name.—Chiruthay.

Kanarese name.—Kirba.

Kurumba name.—Kirba.

Nayaka name.—Kirba.



Photo. by A. T. W. Penn, Ootacamund

THE LEOPARD

THE LEOPARD

So far as animal nomenclature is concerned, South India is a land of misnomers ; and we cling heroically to our old-world traditions. The muntjac, though a true deer, is universally called the "jungle sheep" ; the sambur was until recently (and is still, I believe, in Ceylon) designated the "elk" ; the Nilgiri wild goat poses as the "ibex" ; the leopard masquerades as the "cheetah" ; and the gaur is—and despite the flouting of purists always will be—the "bison." This adherence to old and quite erroneous names, bestowed on the game animals in days when the sportsman did not trouble to be a naturalist, does not make for clearness. Confusion, in fact, could scarcely be worse confounded ; but in regard to no animal is the confusion more pronounced than in the case of the leopard. Not only is the native name of "cheetah" applied indiscriminately to both the large pard or panther and the small pard or leopard, but it is used to designate still a third animal—the hunting leopard. The inclusion of this last-named animal under the common appellation of "cheetah" has not been, it is true, a source of confusion in my part of India, for the all-sufficient reason that he is not found on the Nilgiris or in Wynaad ; but it is none the less gratifying to know that recently the

jumble, so far as the hunting leopard is concerned, has been cleared up. His non-retractile claws, his long legs, his dentition, his spots (round black blots, not rings with the ground colour showing through), and other characteristics, have taken him out of the category of true cats ; and he now occupies a class by himself, with the name of *Cynaelurus jubatus*. No longer does he intrude as *Felis jubata*, and to him alone now belongs the native name of "cheetah."

But another source of confusion still exists in the fact that many writers and sportsmen regard the large pard or panther, and the small pard or leopard, as distinct species. Sanderson says on this point: "Most are now, I think, agreed in accepting Jerdon's view" (Jerdon, by the way, appears himself to have been in doubt on the question) "that the panther and leopard are mere varieties of the same species. Though they differ greatly in size . . . there is not more radical difference between the two animals than exists between horses and ponies. . . . Much of the confusion that has arisen regarding panthers and leopards has undoubtedly been caused by the fact that adult animals are found varying in size as much as do the dray horse and the child's pony. . . . As there are also various shades of colour amongst them, the question has puzzled many who have not had opportunities of examining numerous specimens of both animals." From this extract it would appear that Sanderson subscribed to the view that the panther and leopard are not distinct animals, but merely "varieties of the same species." Yet Sanderson proceeds to enumerate certain differences which, he says, distinguish the panther from the leopard, and he classifies them—following Hodgson—under separate names, calling the

panther *Felis pardus* and the leopard *Felis leopardus*. (Temminck, I may note, reverses the names, and calls the panther *leopardus* and the leopard *pardus*.) If, as Sanderson says, most sportsmen are agreed, and I think they are, that the panther and the leopard are *not* distinct, it is surely as unwise as it is unnecessary to employ two names for one and the same animal. Let us speak of the "panther" and the "leopard" as being more convenient than the roundabout phrase "big leopard" and "small leopard," but let us bear in mind that both are *leopards*, and let us, when we don the mantle of the zoologist, class both under the single title of *Felis pardus*.

The distinctions which are supposed to differentiate the panther from the leopard, and on which those writers and sportsmen rely who consider the two animals to belong to separate species, are thus stated by Sanderson. "The leopard is stouter in proportion to its size than the panther, and the skull is rounder. The spots are more crowded, and the fur is longer and looser than in the panther." After examining many specimens of the leopard, of many different sizes, I unhesitatingly say that these distinctions, when they do exist, are merely such as might be expected in members of the same species, differing in size and age. Even if the leopard is "stouter than the panther" (in my experience this certainly is not a fixed rule), that is merely a concomitant of the difference in size. A fourteen-hand cob is stouter than a sixteen-hand racer: a small tiger is usually more "squat" than a large one: and so on throughout Nature. As to the second distinction—the "rounder skull" of the leopard—I think it will be found that when this has been observed, the skull belonged to a young leopard.

When the skull of an immature leopard is placed side by side with that of a full-grown one, there is a slight difference in shape, which would be naturally accentuated if the immature skull were compared with that of a mature panther. I can even perceive a similar slight difference between the head of a tiger cub and the head of a fully developed tiger; and it may be that, with all the cats, the immature skull is rounder—more “dog-like” would express the variation better—than the mature one. But when I place the skull of a full-grown leopard in juxtaposition with that of a full-grown panther, it certainly is not apparent to me that the former is “rounder” in proportion to its length than the latter. The third distinction—the crowding of the spots on a leopard’s skin (and I again deny that this is an invariable rule)—is surely, when existent, due to the difference in size between the panther and the leopard. I have not troubled to count the number of spots on a large and a small skin respectively, but given that they are the same, or nearly so, naturally they would appear more crowded on the smaller area. The last difference—the longer fur—is in my view merely a question of age. So far as my experience goes, both a young tiger and a young leopard have longer fur than adult individuals of their respective species. To me the characteristics cited by Sanderson seem to be distinctions without a difference: certainly they are not broad enough or marked enough to warrant the separation of the panther and the leopard into distinct species. The one radical distinction is the variation in size, and that—as Sanderson himself points out—is a distinction that holds all through Nature amongst various individuals of a species. Then let the distinctive names be dropped: let it be

recognised that both panther and leopard are leopards : and let both be called by their proper name of *Felis pardus*.

The ground colour of a leopard's skin varies in different individuals from a rich rufous brown through every intermediate shade to a lemon white. It lightens with age, until in very old animals the basal tint is nearer white than yellow. The skin of an old panther I shot some years ago is a light fawn : he was an old male, and a magnificent specimen, measuring eight feet one inch from tip of nose to tip of tail. The under parts are white as a rule, but in some specimens they are tinged with a lighter shade of the general ground colour. On these under parts the hair is longer. The spots on the back, the sides, and the upper part of the tail are irregular broken black rings, through which the ground colour shows in the centre. On one skin I possess, the rings are in a few instances unbroken circles ; but usually the circumference of each ring is split into two or more segments. As a rule the tinted area enclosed by the rosettes is darker than the prevailing ground colour. On the head, the forearms, and the thighs the spots are solid black blots, without any pale centre, diminishing in size as the extremities are reached, where they are mere dots. Towards the end of the tail the fur is longer, and the black blotches frequently encircle it. In some cases a line of solid black blots extends from the neck half-way down the back ; but just as often all the spots on the back are rosettes.

In size the leopard varies from under five feet to over eight, and naturally his habits vary with his size. The chief food of the smaller leopard consists of dogs, jackals, monkeys, hares, jungle-fowl—in short, no small animal or bird comes amiss to his larder. But for dogs

he has a marked predilection, and hence he haunts the vicinity of villages, or, in my part of the world, estates, where coolies always keep a number of yelping pariah dogs in their lines. He clears these out with systematic regularity; but the coolies are always considerate enough to replenish the supply of his favourite food, and hence a dog-killing leopard often takes up his residence permanently in the jungle which usually surrounds an estate. These small leopards also seem to have a penchant for dense cover, for I have several times come across them in the heavy forest bordering the Ghats. Their chief food in such localities is probably the young of deer when obtainable, and birds and vermin at other times.

The large leopard, or panther, does not disdain a dog or any other of the dainty morsels his smaller congener is partial to; but as he is quite equal to killing a full-grown deer or bullock, he has a far wider field of choice for his menu. He is seldom if ever found in the heavy Ghat forests, his habitat in Wynaad being the light, deciduous bamboo jungles further inland. It is singular that the range of our spotted jungle-folk is, broadly speaking, coterminous: the panther, the spotted deer, and the peacock are all confined to the bamboo belt. They are absent from the dense forest which clothes the Wynaad Ghats, but directly the bamboo jungle begins again on the Malabar plain they are once more associated. On the plateau of the Nilgiris, where there is no heavy forest—the jungle consisting of isolated *sholas* in the valleys between the hills—both panther and leopard occur.

The leopard is a far bolder and more courageous animal than the tiger, and, unlike his striped cousin, he has little fear of man. It is therefore curious that he

so seldom takes to man-eating. In this part of India I have never heard of an instance of a leopard turning professional man-eater. He does so sometimes in Central and Northern India, and, owing to his innate fearlessness, his greater activity, his ability to climb trees, and his remarkable capacity for concealment, he then becomes a greater scourge even than a man-eating tiger.

A panther kills his prey in the same way as the tiger—by dislocating the vertebræ of the neck: the smaller leopard, when he attacks an animal whose neck he is not powerful enough to break, seizes its throat and clings on in an effort to strangle it. On more than one occasion my estate cattle have been attacked by leopards, and in all such instances the throat was badly mangled. My cattlemen have invariably described the marauder as a small leopard. The opinion is generally received that leopards conceal the carcasses of their kills, but I have never known a case of the kind. I have had many calves killed by leopards—some taken when feeding in the open during the day, some pulled out of the calf-pen at night—and the carcase has always been dragged into cover near by, and left there without any attempt at concealment.

The leopard can climb trees with ease, and it is my belief that he often uses a tree as a coign of vantage from which to watch for his prey. On two occasions I have seen leopards on trees in the early afternoon; and it is difficult to conceive what purpose they could have had in view save to keep a look-out for animals on the move below.

A third variety of pard, which is not uncommon on the Nilgiris and in Wynaad, is the black leopard.

Round this variety, again, controversy has long raged ; and by what I may term the "hair-splitting" section of naturalists and sportsmen, he has of course been classed as a distinct species, and named *Felis melas* or *Felis perniger*. Sanderson does not express an opinion either way. He writes :—"I have never seen the animal in its wild state, but I have seen two nearly full-grown ones in captivity, and more than one skin. The two I saw are now alive in England, and are apparently cubs of one litter. This circumstance would seem to militate against the view held by some naturalists and sportsmen that black leopards are only *lusi naturæ* ; and the fact that they never occur amongst ordinary leopards in the open-country localities of Mysore also seems to point to the conclusion that the black leopard is quite distinct. On the other hand, there is said to be no anatomical distinction between the two animals, and testimony exists to show that amongst ordinary leopards, from heavy forest tracts at least, melanoid individuals do occur." I do not myself see how the fact that the black leopard seldom if ever occurs in open country or light jungle can be used as an argument for classing him as a separate species. Sanderson himself points out that in Mysore the panther frequents light jungle, and the leopard heavy forest ; and as the black leopard is always a small pard or leopard, it is not a matter for surprise that his usual habitat should be the same as that of the ordinary leopard, viz., heavy forest. On the plateau of the Nilgiris, even this distinction is non-existent ; for on the Kundahs—a range of mountains where the cover consists merely of *sholas* in the valleys between the hills—he is fairly common. But the fact which establishes beyond all doubt that the

black leopard is only a variety of the ordinary leopard—a *lusus naturæ*—is that two cubs, one black and the other spotted, have frequently been seen running with the same spotted mother.

The coloration of the black leopard is somewhat difficult to describe. The body colour is black, of the same shade as the fur of a black cat; and in a certain light the spots are visible as still darker blotches. I have somewhere seen the skin described as having the appearance of "watered silk," and that phrase conveys the best idea it is possible to give. As already mentioned, I have never seen or heard of a black leopard attaining to anything approaching the size of a panther.

I have never had the good fortune to shoot a black leopard, but I have seen them on three occasions. Some years ago I was shooting on the Kundahs, my tent being pitched near the Bison Swamp. I had had a long and difficult day on the cliffs after ibex, and when I reached camp about 4 P.M. I felt a bit done. On my way home, about half a mile from my tent, I noticed a clump of *Cælogyne corrugata* growing on a rock, and after tea, feeling fit again, I thought I would stroll back and secure it. I took a native with me to scale the rock, but alas!—I shall never forgive myself for the omission—I did not take a rifle. Having crossed the swamp, our path led through a strip of *shola* on to a grass hill beyond. A quarter of a mile further on a second *shola* ran down obliquely to meet the one I had traversed in the valley below, the two covers shaping the tongue of grass land into the form of a V. As I have said, the distance between the arms of the V was about a quarter of a mile, and from the path which led across the grass hill to the angle of

the V was a similar distance. The ground sloped gently down, so that I had a clear view over all the hill, to the junction of the two covers. Just as I left the *shola*, I saw a black object rolling on the grass at the foot of the hill, which at first I took to be a bear. But there was a freedom about the frolicking in which the animal was indulging that was foreign to the awkward motions so characteristic of Bruin, and I was puzzled to determine what the black beast could be. Telling my man to hurry back to camp as fast as he could and fetch my rifle, I sat down behind a tree at the edge of the *shola* to watch till his return. In a few moments my unknown *vis-à-vis* sprang to his feet, and began a series of antics: he seemed to me to be chasing his own tail. This game went on for a minute, and then the animal came steadily up the hill towards me. When about two hundred yards distant he squatted down in the grass; and, as the bright afternoon sun shone full upon his black hide, giving it a gloss like silk, I made him out clearly as a beautiful specimen of the black leopard. Ye gods! what a prize: the chance of a lifetime: and on this day of all days I had been fool enough to leave my Express behind! Suddenly the leopard raised himself: glared straight in my direction with ears pricked forward: then covered the stretch of grass in a succession of magnificent bounds, and plunged into the opposite *shola*. The next moment the reason for his alarm became apparent to my duller ears, for I heard my cooly coming through the jungle, making noise enough to scare twenty leopards. My greeting was scarcely in the nature of a benediction; but luckily for the cooly, my sense of proportion asserted itself, and I remembered that if I had lost a shot at the leopard

through the cooly's folly, I was a bigger fool myself for neglecting to carry my rifle always in a game country. So, a sadder and a wiser man, I plodded back to camp.

My second meeting with a black leopard was in this wise. I was felling some jungle at the foot of my estate, and one morning early I went down to watch the work. Suddenly my dogs rushed into the jungle below, and a minute afterwards I heard a rousing chorus from the whole pack. As the barking was stationary, it was evident they had brought something to bay; and I made my way into the cover, which was very thick and matted with a close growth of underwood, in the direction of the hubbub. It took me some little time to reach the dogs, and when I got up to them, I found them jumping up against the stem of a large sloping tree, barking furiously at something in it. For some time I could not make out what all the skeer was about; but at length I saw a black animal almost hidden in the dense foliage, which at first I took to be a black monkey. Shifting my position, I got a good view, and I then saw the animal was a black leopard. He was a small specimen, but he looked a perfect fiend as he snarled at the noisy dogs below, drawing back his lips in a grin which made his fangs shine like ivory in his black face. So intent was he on watching the dogs that for a moment or two he did not notice me: when he did, he made a surprising leap into the next tree, and thence to the ground. In spite of my shouting and whistling, the excited dogs rushed after him, and I felt certain that that some of them would pay the penalty for their rashness. I was therefore greatly relieved when, ten minutes afterwards, the whole pack rejoined

me scatheless. They had evidently had a blank chase.

One morning my Kurumba Maistry came to the bungalow to tell me that the local Chetties had netted a tiger close to an estate I own about nine miles away. I have seen so many tigers speared, that it would need a *tamasha* very much out of the common run to tempt me into a nine-mile ride ; but I have always refused to allow tigers to be netted on my land, and as the Maistry told me this tiger had been caught on land belonging to the estate, I determined to ride over and see for myself. If this were really the case, I fully intended to have the nets taken down, and to give the tiger a run for his life, so I took a rifle with me. On arrival, however, I found that the *nullah* in which the nets were set up lay just outside my boundary, and that the usual preliminaries to a spearing were in full swing. Presently the old Chetti who was directing operations came up to make his salaam, and I asked him whether the tiger was a big one. As all tigers are monsters to a native, an affirmative reply was a foregone conclusion ; but I certainly was not prepared for the statement which followed. "Yes," said the Chetti, "he is a huge beast, and I am glad the *dhoray* has come to see the spearing, because such a tiger was never seen before. We saw him last evening when he was netted, and again early this morning, and he is *black*—a very devil amongst tigers." It was useless insisting that a black tiger was quite unheard of: the Chetti held to his assertion. He had seen the tiger with his own eyes: he was as black as a crow: and if the *dhoray* wished he would bring twenty witnesses to prove it. He clung to this statement so obstinately, that I began to think there must be some

ground for it, and my first thought was that probably the netted tiger had a darker skin than usual ; but when the real business of the day began, the mystery was solved.

The nets enclosed a flat space at the foot of a thickly wooded *nullah*. Through this *shola* coursed a small stream ; and the flow being checked on the flat, this was wet and swampy, and covered with underwood and scrub. The tiresome preliminaries over, the men ranged themselves round the net, and long bamboos were thrust into the underwood to stir up the tiger. At the very first thrust into a particularly thick clump of bushes, out he came like a Jack-in-the-box, and stood revealed as a magnificent black leopard. In all accounts of the black leopard I had read, he had been described as far more ferocious and ill-tempered than the ordinary leopard. This one did not belie the reputation. With ears pressed flat and twitching tail he stood fully exposed to view in the open space between two bushes, while he glared round the circle of his tormentors with a snarl that I can only describe as hellish. I never saw such a picture of concentrated rage. He looked what he was at that moment : a fiend incarnate. The moment I realised that the captive was a black leopard, I pushed my way to the headman, and offered him fifty rupees if he would let the leopard out of the net, and give me a shot at him in the open. But the old man, like all the rest of the yelling crowd, was beside himself with excitement. "No, no," he said, "not for five hundred rupees," and then he shook his spear and joined in the chorus of "*va, va.*" The leopard was not slow in accepting the invitation. Like an arrow I saw him charge the net some distance to my left. It gave, and out he

came amongst the spearmen, rolling over and over from his tremendous impetus. Before he could recover himself, an old Paniyan drove his spear clean through his body, pinning him to the ground. The next moment the crowd closed round me, and I was borne along in the universal rush. With both fists I pommelled the shrieking demons that hemmed me in, and when at last I was able to fight my way to the leopard, he was at his last gasp, with a dozen spears thrust into his neck and body, and his teeth savagely clinched in the handle of one of them. That nobody was hurt in the *mêlée* was due entirely to the pluck of the old Paniyan, who speared the leopard before he could regain his feet, and I thought five rupees none too large a reward for his coolness and courage. How he managed the feat I do not know, for a more unwieldy weapon for a fight at close quarters than one of these spears, with its twelve-foot handle, it would be impossible to conceive.

This spearing had a curious sequel. When the excitement had subsided, and the Paniyans were preparing to drag the leopard away, it was discovered that the last inch of his tail was missing. The old Chetti who was acting as Master of Ceremonies cursed the whole crowd as a pack of thieves, and swore the direst vengeance on the man who had actually committed the theft. Then a Paniyan stepped forward and declared the mutilation was the work of a Eurasian writer who had been watching the *tamasha*, and that the missing inch would be found in his pocket. The writer swore that he had not set finger on the leopard, but I saw his dark face turn a livid green. The excited crowd, however, meant business, and were not to be put off by his denial.

Wildly protesting his innocence, and appealing to me for protection, he was seized and searched, and the stolen inch of tail taken from his pocket! What the result would have been, I do not know; certainly unpleasant for the writer. However, fearing that he would be mishandled, I intervened, and with great difficulty was able at last to drag the trembling wretch from the clutches of the Paniyans. I would have liked to know what possible object he could have had in stealing the tip of the leopard's tail, but I had no opportunity of putting him the question, for the moment he found himself free he took to his heels, and disappeared over the hill in a twinkling.¹

As I have said, tiger-spearing soon palls, and I would not go out of my way to see one; but talking the day's events over that evening with my pipe, I came to the conclusion that they had been well worth my nine-mile ride.

A leopard usually returns to his kill earlier than a tiger, and in doing so is far bolder. Hence it is that village *shikaris* account for perhaps three times as many leopards as tigers, by sitting over kills. As an example of their boldness, I may quote the following incident. Early one morning one of my cattle-keepers came to me with the information that the shed in which the calves were kraaled—which is not a hundred yards from my bungalow—had been broken into during the night, and a calf abstracted. He thought the robbery was the work of a biped thief, keen on veal; but some scratches on the bars of the shed made me put the marauder down as a leopard or

¹ To the junglemen, the tip of a tiger's or leopard's tail (or tongue) is a veritable magician's wand, giving its possessor power to cast spells over his enemies.

tiger. The ground all round the cattle-shed was very hard, it being the hot season; and for a long time I could find no trace of either the missing calf or the thief. But at last, some distance from the shed, I came on the pugs of a leopard. I sent Chic Mara to work out the track; and about 2 P.M. he returned to the bungalow to say he had discovered the carcass of the calf near a stream about half a mile away. It was then too late to build a *machan*, so I sent Chic Mara and a couple of coolies back, with instructions to put up a rough screen near the kill. In an hour or so Chic Mara came to tell me the screen was ready, and giving him my Paradox, I at once went down. But on reaching the spot, no carcass could we see. Chic Mara showed me where it had been lying; and it was evident that between the time he left the kill to summon me, and my arrival, the leopard had dragged the calf away. Below us, the stream was fringed with a thick growth of underwood and wild arrowroot, and while we were discussing the disappearance of the kill in whispers, I noticed the long fronds of the arrowroot swaying, though there was not a breath of wind. Evidently the leopard was dragging the kill through this cover, and I ran along the edge to cut him off at a point where the undergrowth narrowed to a space a few yards across. But when we got there, we found the leopard had been before us, his tracks being clearly marked in the moist soil. There was no sign of the carcass having been pulled across, and on going back to where I had first seen the bushes moving, we found it. The leopard must have heard us on the hillside above him, and dropped the calf when he bolted. About twenty yards away was a large tree, behind which I posted myself, having first

made Chic Mara clear away the arrowroot to where the calf was lying, to give me a view of the body. I had not waited ten minutes, when again we saw the bushes begin to sway gently as the leopard slunk back, and the next instant he appeared. Just as he seized the calf by the throat, I fired at his neck and rolled him over. He was a small beast—one of the kind that make dogs and calves their special prey.

Many years ago I was a witness to the most extraordinary conduct on the part of a leopard—conduct for which I have never yet been able to obtain a satisfactory explanation. Late one afternoon, H. and I were returning to his shooting box at the Bison Swamp, after a jaunt to the cliffs, when across a long, narrow, and very steep *nullah* we saw a leopard. When I first noticed him, he was walking along the further edge of a *shola* which filled the valley between us, and for a little time we were not sure whether he was a tiger or a leopard. But as we watched, he left the cover of the jungle and sat down on the open grass hill. Quite distinctly then we could see his spotted hide. The actual distance across was not more perhaps than six hundred yards; but to get to him would have entailed a long stalk round the valley, and as it was late and we had still several miles to cover to the bungalow, we decided we should have to leave him alone. While we sat watching him he suddenly lay down and turned over on his side. The grass was short, and through my glasses I could see him very clearly. A moment afterwards two hind sambur came out on the grass hill, just above him, and began to feed. The leopard lay quite still, and five minutes must have passed before the hinds discovered him. Then one began to bell and stamp; then both. H. and I fully expected to see the hinds dash into the

cover ; but instead of this, they both advanced towards the leopard with tails and ears cocked, and the curious mincing gait a sambur assumes when going towards an object the nature of which it is not quite sure of. Soon the hinds reached the leopard, and we made certain one would pay dearly for her curiosity ; but still the leopard lay motionless. Both hinds then sniffed the prostrate body, ran fifty yards across the hill, and—*mirabile dictu*—began to feed again ; while the leopard sat up, and looked about him in the most unconcerned way ! For some little time longer we watched, till the hinds fed over the brow of the hill, and then we left Spots sitting alone in his glory.

The only theory I can put forward to account for this extraordinary behaviour on the part of both leopard and sambur is that the leopard feigns death to induce his prey to approach him ; and that this particular leopard was not hungry enough to kill, though he followed his usual custom of counterfeiting death when he heard or winded the hinds before they came out of the *shola*. It is a lame explanation, I admit, but it seems to me the only one that will fit the case.

The audacity of the small dog-killing leopard in pursuit of his favourite food is astonishing. I have lost probably twenty dogs at various times, all carried away by leopards, and some have been taken under my very nose. I was sitting in my verandah one afternoon about three o'clock, and a large black semi-poligar named Rajah was asleep a few feet away. The coffee on my *tote* extends to my bungalow, making a thick cover almost up to my front door. While reading, I heard a yelp, and turning my head, I saw a leopard with Rajah in his mouth. Stealthily and silently

he had crept up through the coffee, and he dashed back into it with the dog before I could rise from my chair. On another occasion I was coming back to my bungalow about midday, along the main road, when a leopard darted out of some thorny scrub at the side of the road, and carried off a fox-terrier named Fairy at my very feet. One evening H. and I were out for a stroll, when, not two hundred yards from the house, a leopard seized his spaniel Lady, who was trotting on a little way ahead. H. was carrying a gun loaded with No. 8, and he promptly gave the beast both barrels. We found plenty of blood on the track, but the leopard did not drop the dog, though he must have been well peppered at that close distance. I could give several other instances of a leopard's "cheek" were it worth while to set them down; but one odd adventure I had with a dog-killer will bear recital. One April afternoon I had been over to see a friend about four miles away, and shortly after I left his bungalow on my return home, it began to rain. As riding was uncomfortable in the wet, I got off my nag, and gave him to the horsekeeper. After a mile the rain stopped, and the sun came out; and the sunshine after the rain made such a lovely afternoon, that I shut my umbrella and determined to walk the rest of the way home. Before me trotted five little terriers, behind me came the *syce* leading my horse. We reached a sharp bend in the road, and the doggies had disappeared round it, when I saw the whole pack rushing back full tilt, with a leopard at the heels of the hindmost dog. Just as they reached me, the leopard seized Flirt, and at the same moment I "landed" him a blow on the head with all my force with the umbrella, which flew into splinters. The leopard dropped the

dog, but his impetus was so great that he could not stop, and rushing past me, he knocked my *syce* clean off his legs. Then he jumped into the *dhubbay* grass bordering the road. The change that came over our peaceful procession in that one instant was astounding! There stood I in the middle of the road, flabbergasted, with a broken umbrella-handle in my hand: my *syce* was roaring blue murder on his back: my horse was bolting for home like a runaway engine: and my five little dogs were shivering at my feet! I picked Flirt up and carried her home. She was badly bitten in the neck, but frequent applications of phenyl soon made the wounds heal, and in a fortnight or so she was right again. But she was a changed dog. Before her adventure she had been keen as mustard: always eager for an outing, always first to find a muntjac or a junglefowl when I went out of an afternoon to look for something for the pot. But from that day she lost all her keenness, and all her liking for sport. She would come out with me, but she always stuck to my heels, and nothing would induce her to enter a *shola* or join the other dogs in a hunt of any kind. She died a few months afterwards, worn to a skeleton by dysentery, which I verily believe was induced by the fright she had received. Poor little Flirt!

This predilection for dogs makes it an easy matter to trap a leopard, when the trap is baited with a pariah. I have never tried this method of extermination myself, but a planter in my neighbourhood has caught several. The trap is merely a wooden box, ten or twelve feet long, and three feet or so wide, the sides being closed with strong wooden bars. The door, which slides in grooves, works on precisely the

same principle as the door of a rat-trap. To the top is hinged a wooden bar, which leads across the top of the box, and from its further end depends a rope, which runs into the trap through a hole in the roof. When this rope is taut the door remains open, but the slightest disturbance of the rope releases the bar, and the door falls by its own weight. As the leopard cannot enter the trap without touching the rope, he invariably shuts himself in. A space just large enough to hold a dog is partitioned off at the further end of the box, and in this a wretched pariah is placed; care, of course, being taken that the bars round the partition are close enough to prevent the leopard inserting his paw through them. Hearing once that a leopard had been trapped, I went over to see him. He was a fine large specimen, and did not look the sort of customer that could be easily hoodwinked. He lay in the trap, occasionally showing his teeth at the crowd round, but he had made no effort to escape or to bite through the bars. It was the wretched pariah, however, who was still in the trap, that excited my sympathy. Such a forlorn, miserable wretch I never saw before. He was crouched in one corner of his cage, as far away from his unwelcome companion as he could get; and the howl to which he occasionally gave vent said plainly that, for him, the night had not been "filled with music" (save his own!) or rapture either! I opened the door of his cage, and the moment he was free he "shinned out of Galilee" faster than ever a dog shinned before. My friend was very proud of his feat in having caught the leopard, and calling for his gun, he shot Spots before the crowd of admiring coolies. A most inglorious end, I thought, for such a fine beast.

Unlike the tiger, the leopard as a rule begins his meal with the forequarter of his kill; but on a few occasions I have known him start with the hindquarters. I was walking round the estate one morning with a friend, when my dogs rushed down into the coffee, and in a moment we saw them tailing away across a swamp below us, in full cry after a stag sambur. An hour or so afterwards they all joined us with the exception of a favourite dog, a spaniel named Bingo. As he had not returned when we reached the bungalow, I sent men to search, but they came back without news of the dog. I then went down myself, and following in the direction the pack had taken in the morning, I came on the fresh tracks of a large leopard near a belt of jungle. This made poor Bingo's fate certain, and I determined to try to avenge his death. The next morning I bought a white goat as a bait, and sent men to put up a *machan* near the *shola* into which Bingo had evidently been carried. But as it chanced, a kind fate was delivering my enemy into my hands without further trouble to myself. I did not get back to the bungalow till late that afternoon, and there I heard that my cattleman had been up in the morning to report that a tiger had broken into an outlying cattleshed the previous night, and had killed a heifer. When I reached the shed, the herdsmen had a vivid tale to tell of how they had seen the tiger and frightened him off with shouts, and that later he had returned and dragged the carcass out of the shed. The ground all round was hard and dry, and I could find no footmarks; but on examining the kill, which had been carried fifty yards from the shed, I found one hindquarter demolished, which seemed to corroborate the cattlemen's story that a tiger was the thief. It was too late to build a *machan*, so I set the

men to run up a rough screen of boughs by the side of the shed, and behind this I squatted. To my left a line of bushes ran up nearly to the shed : to my right lay the long shed itself : while in front, and beyond the kill, was an open stretch of grass land for one hundred yards, at which point it met a patch of heavy jungle.

I had been watching for half an hour, when a slight noise to my left made me turn my head for perhaps ten seconds in the direction of the scrub on that side: when I glanced at the kill again, there stood a fine leopard above it. How he had got there unseen and unheard in the few moments during which my attention was diverted from the kill was a mystery ; and it is this marvellous faculty for covert approach that makes the leopard so dangerous—far more dangerous in my view than the tiger. A small bush hid the beast's shoulder, and I waited with my Paradox ready till he should step forward. Just at that moment the wind changed, and the leopard must have scented me, for like lightning he crouched with his eyes fixed on the screen. For a few seconds we faced each other: then he was off in a series of bounds. But luckily for me he took across the open ground as he retreated towards the thick cover behind, and my bullet caught him fair behind the shoulder, sending him over like a rabbit. He was a fine specimen, seven feet three inches from tip to tip.

Why this particular leopard should have chosen to break the rule, and begin his feed with the hindquarter of the heifer, I cannot say : possibly the cattlemen *may* have frightened him away as they averred, and on his return he thought it prudent to start with the part of the kill lying nearest to the thick cover, in readiness for instant flight if he was disturbed again. Out of

perhaps thirty kills by leopards I have examined, there were only two more instances in which the hind-quarters had been first attacked. In these two cases I did not see the thieves, but the tracks were plain, and they were leopards beyond doubt.

"It never rains but it pours." About a week after I had shot poor Bingo's murderer, I was out with the dogs in a different part of the *tote*. Half a dozen were trotting at my heels, while Sugar, a very keen terrier, was twenty yards ahead, and had just given tongue to a jungle fowl she had flushed, when out bounced a leopard from the coffee, and was away with the dog in a flash. A little below was a strip of jungle and for this the beast made. I ran towards it shouting my loudest, and just inside I found the dog at her last gasp. A sporting Kanarese cooly named Thundukol was with me, and I sent him off to the bungalow for some more coolies with ropes and knives to build a *machan*, while I watched my poor little doggie's body to keep away the leopard till the men arrived; and at 4 P.M. I took up my post on the platform with Thundukol.

The jungle was very thick, with a deal of undergrowth, but my men had cleared round the dog's body, so that I could see this plainly, and a short way beyond. I watched for an hour, when, in the dense shade beyond the dog, I thought I could distinguish the vague outlines of an object which had not been there before. But the low beams of the setting sun, filtering through the jungle, made such a mosaic of yellow light and black shadow, that for the life of me I could not determine whether what I took to be the leopard was fancy or fact. For a full quarter of an hour I kept my eyes fixed on the spot, but not a movement could I detect

which might not have been the flickering of the chequered pattern on the ground as the soft evening breeze stirred the leaves of the trees overhead. But at last the sun behind me sank low enough to strike direct into the shadow under the green canopy of the jungle, and the leopard was clearly revealed as the level beams shone into his great yellow eyes and made them sparkle and glitter like topazes. His body was masked by a tree, behind which he sat, and only his head was visible as he peered round the trunk. With the utmost caution I pushed my Paradox an inch through the screen of leaves in front of my perch, and brought the gun to my shoulder. But the leopard's head was raised so high that I could not fire for fear the bullet might glance off his forehead. I kept him covered; and so we faced each other for five minutes more, the leopard lazily blinking in the sunlight. Just then a tiny bird flew down and hopped round the dog's body. For an instant the leopard lowered his head to gaze at the intruder, and in that instant I had him. My bullet crashed into his brain between the eyes, and he fell forward on to the dog, stone dead. Dear little Sugar was avenged. This leopard was a male in prime condition and measured just seven feet from tip to tip.

I once had the good fortune to bag an exceptionally fine specimen of the large leopard or panther. Five miles from my estate are a series of swamps, which in the season—from October to February—are about the best snipe ground in the district. In the middle of one of these swamps is a Paniya village, and as the headman always goes home the richer by a couple of rupees when I make a good bag, he keeps a watchful eye on the snipe and brings me news of where birds are plentiful.

On one of his visits he told me that several head of cattle had been killed recently near his village by a "leopard as big as a tiger," and he offered to turn out all his men to beat for me if I would come over and shoot it. I was too busy at the time to leave the estate, and as I put down the description of the beast's abnormal size as a piece of native exaggeration, I told the old Paniyan the leopard would have to wait. But having a little spare time a week or so afterwards, I packed up my gun and Express and started for the D. bungalow. On arrival I was greeted effusively by the headman, who gave me the welcome news that a buffalo calf had been killed the previous evening by this phenomenal leopard. Several of the Paniyans were good trackers, and as the day was still young, I sent them off to try to discover in which of the many small covers near the kill the leopard was lying up. At two o'clock they returned to say they had tracked him into the endless forest which begins at the foot of Sullimallai. This it was impossible to beat, so I determined to watch over the kill.

The buffalo had been pulled down in a swamp, and the carcase dragged some distance to the edge of a small *shola*. Between this cover and the Ghat forest lay a long grass hill, with clumps of large trees at intervals. Knowing that the leopard's line of approach would be down this hill, I had a screen built in one of the clumps, and behind this I took up my post with the headman at 4 P.M. We watched till it was too dark to see, but the leopard did not show; and then for the first time old Kutti told me the Paniya herds-men had raised a tremendous "hullabaloo" the previous day when the buffalo was killed, and he

feared the leopard had been frightened away for good. We passed the kill on our way home, and found it undisturbed. Kutti wanted to remove it at once with the view of selling the flesh, already very high, in the bazaar ; but on the off chance of the leopard's return during the night, I promised to pay for the calf if he would leave it.

The following morning just as I had turned out of bed, Kutti came post haste to the bungalow with the news that half the kill had been eaten during the night, and he had sent off his men to track the leopard. They returned at eight o'clock and said that this time he had not made for the big forest, but was lying in a cover close to the kill. So off I set with twenty beaters following at my heels. Feeling sure that the leopard would make for the Ghat forest on being disturbed, I sent the beaters to the swamp, with instructions to beat upwards, while I took up my post on the grass hill behind a large tree fifty yards from the upper end of the *shola*. The Paniyans kept a good line, and beat right through the cover, but no leopard appeared. We held a consultation as to the next move, and as it seemed certain that the leopard had again retreated to the Ghat forest, I had just determined to surrender all hope of a shot at him and turn my attention to snipe, when up came Chic Mara. He had gone to my bungalow early that morning, and finding I had left for D. had followed ; and lucky it was for me, as the sequel proved, that he did so.

In five minutes I had explained the situation to Chic Mara, and set him to work the puzzle out. We went back to the kill, and after a short examination Chic Mara asked the Paniyans why they had said the leopard was lying up in the adjoining cover—

the one we had just beaten. They pointed to the track leading into it. "You fools," said Chic Mara, "that track is a day old, and was made by the leopard when he ran for the big forest after you frightened him. Follow it up and you will see I am right. Just like fools of Paniyans to come to the *dhoray* with a string of lies before seeing whether the track led *out* of the jungle." Chic Mara took up the track, and sure enough he carried it through the cover and out on the grass hill beyond. "So much for a Paniyan's cleverness," said Chic Mara, "now let us try to find the morning track." Once more we went back to the kill, and after a cast or two Chic Mara was off on a track leading away to the left. With consummate skill he held this for half a mile, when it entered a considerable *shola*. Round the edge of this he worked, and as no track led out, he confidently affirmed he had bottled up the leopard.

This cover lay in the depression between two hills, and as it was far too extensive to be commanded by a single gun, I felt that my chance of a shot was very remote. Kutti said that a cattle track led through the *shola*, and that years before he and his men had beaten the same cover for a tiger, which had kept to this path. It was probable, he thought, that the leopard would do the same, and as the advice seemed good, I went round to the point at which the cattle track left the *shola* on the opposite side, leaving the men to beat up to me. A short distance above, on the open hill-side, was a single large tree, and behind this Chic Mara and I posted ourselves. Scarcely had the beat begun when a sounder of pig broke close to us. "That does not look as if the leopard is at home, Mara," I said, when, following almost on the heels of the pig,

out came the leopard at the very spot we had marked for his exit. In an instant I realised that old Kutti had for once kept within the truth when he told me that the leopard was "as big as a tiger," for as he trotted out of the cover with the sun shining full on his glossy, spotted hide, he looked what he was—a king amongst leopards. I waited till he was just past my post, and then gave him the right barrel behind the shoulder. He rolled over to the shot, but I had not made quite enough allowance for the steepness of the hill down which I had to fire, for the bullet took him rather high up, paralysing but not killing him. Then followed an awful exhibition of impotent rage. The leopard literally clawed his way towards a small *shola* ahead, biting the earth and the bushes as he dragged himself along. For a few moments I was so fascinated by his terrific struggles that I forgot to fire: when I did pull the left trigger I missed him clean, and before I could shove in fresh cartridges he had reached the *shola* and crawled in.

The cover was very small, and the Paniyans expressed their willingness to beat it, but this I would not allow. If we could make the leopard break again I felt I had him for a certainty, as the *shola* was merely a patch of jungle in open grass land, and I could see all round it. I took up a position about the middle, and the men kept up a shower of stones; but though the bombardment lasted for ten minutes, accompanied by vociferous invocations to the leopard to "come out and be killed," he declined the invitation. Chic Mara said he was dead and volunteered to go in and drag him out; and he looked quite crestfallen when I refused to let him run the risk. There was nothing for it but to follow him in, so with Chic Mara

and a couple of Paniyans I entered the *shola*. We had not penetrated a dozen yards, when I saw the leopard under a tree. He was lying facing us with his head between his paws. Instantly I stopped the men, and brought my rifle up, but he was too far gone to do anything more than snarl. We watched him for a moment, then feeling sure he was past mischief, I walked up to within fifteen yards, and kneeling down, I finished him. He was a magnificent brute, measuring eight feet one inch in length, and with a lighter coat than I have ever seen in a leopard.

That evening after dinner I was sitting in the verandah of the bungalow when Chic Mara came up. After commending him for his skill, I asked him a question that had been puzzling me all day : "Why the Paniyans had made such a silly mistake in the back track?" Chic Mara turned away and covered his mouth with his hand. "What are you laughing at?" I asked, whereat he replied by another question, "Why didn't the *dhoray* go round the *shola* and satisfy himself there was no track leading out?" "Because I knew the Paniyans were good trackers, and had no reason to suppose they were misleading me." "Well, they were," said Mara; "I have been to their village, and this is the truth. When they found this morning the leopard had returned to the kill, they tracked him to the right *shola*, and then tried to put you off the scent because they wanted to net him." "They preferred the *tamasha* to the present I gave them?" I asked. "They wanted the *tamasha* and the money too," said Mara, "and hoped to get both." As I shook the ashes out of my pipe and started to turn in, I wondered if I should ever get to the back of my Aryan brother's sinuous mind. I am wondering still!

THE BISON

Scientific name.—*Bos gaurus*.

Tamil name.—*Kāt yeramay*.

Kanarese name.—*Karti* (and others).

Kurumba name.—*Karti* (and others).

Nayaka name.—*Karti* (and others).





Photo. by A. T. W. Penn, Colacumund

THE BISON

THE BISON

“Do you know that mighty forest, on the Western Mountains’ crest,
Where the lordly bison reigns and roams at will?
Do you know the long day’s tracking, dawn to dusk without a rest,
While the bull keeps moving *just* before you still?
It is there that I am going, with my rifle and my tent,
And a tried and trusty tracker that I know;
Can a Savage feel contentment in brick and mortar pent?
The Red Gods call me out, and I must go!”

(With apologies to R. K.)

EVERY writer on Indian sport begins his chapter on the bison with the emphatic assertion that “he is the finest specimen of the genus *Bos* in the world”; and no one who knows this grand animal will dispute the assertion. The name “bison,” by which he is universally known in India, is of course a glaring misnomer, for he does not belong to the bisontine group, the only Eastern representative of which is the yak (*Bos grunniens*). He falls under the taurine sub-division of the genus *Bos*, which is distinguished from the bisontine sub-division chiefly by the absence of long hair on the head and shoulders, and by a dorsal ridge. He got his name of “bison” in the old days of lax nomenclature, and the misnomer has been so hallowed by custom that there is small chance of its being dropped. His colloquial name ought of course to be

the "gaur." In Assam there is a variety known as the gayal or mithun (*Bos frontalis*), which differs from the gaur by the presence of a well-defined dewlap, and in the shape of the horns, which have no inward curve as in the gaur. But the latter is also found in Assam, side by side with his congener the gayal. In Burma occurs another variety, the banting (*Bos sondaicus*), which also has a dewlap, and apparently a longer tail than the Indian bison.

In body, the bison is extraordinarily massive, with possibly the most powerful neck of any animal extant save the elephant. This great frame is mounted on legs which seem disproportionately slender in relation to his size and weight, and they terminate in hoofs not much larger than those of a deer. But his build is marvellously well adapted to the country in which he delights—forest-clad hills; and the pace at which this great animal can travel up or down the steep hills of the Western Ghats must be seen to be realised. The head is curiously formed. Above a horizontal line joining the bases of the horns rises a ridge of bone. The crown of this ridge—which forms a curve between the horn cores—projects outwards, so that immediately below is a deep concavity where the ridge joins the forehead and the line of the face. In life, this high ridge, the short head terminating in very square nostrils, and the large, pale blue eye, give the bison a very sedate appearance. Along the back runs another ridge which ends suddenly midway between neck and tail in a fall of several inches.

It by no means follows that the oldest bull carries the best head; I have shot patriarchs with comparatively small horns: while the best head that ever fell to my lot belonged to a youngish bull I found in

company with a veritable Nestor. I bagged them both ; and while the old bull's head was not remarkable for anything except the width across sweep, due to the horizontal growth of the horns (a characteristic of old bulls), the head of the younger bull was a beauty. Some magnificent heads have come from Wynaad—perhaps the best recorded from any part of India having regard to the *tout ensemble*. It is difficult to say which of these heads is absolutely the finest, because, as usual, the measurements given do not follow a system ; but I think there can be no doubt that record honours belong to the head shot by Mr. F. W. Ditmas, erstwhile a planter in South Wynaad. The dimensions are given further on. Mr. G. Hadfield has a very fine head, shot, I believe, near Nilambur, at the foot of the Wynaad Ghats :—

	Inches.				
Length	?
Girth	19½
Spread	44
Tip to tip across forehead	83
Span between tips	31

Sanderson's best head, shot in Mysore, measured :—

	Inches.				
Length	?
Girth	19
Spread	33
Tip to tip across forehead	74
Span between tips	19

The Mysore jungles have furnished many good heads. Burke records one shot by Surg.-Capt. White-stone in 1897, eighty-three inches from tip to tip across forehead ; and another, which he calls a " magnificent

specimen," shot by Mr. M. B. Follett, the measurements of which were :—

					Inches.
Length...	...	...	...	...	?
Girth ...	...	...	...	...	?
Spread ...	...	...	...	...	44
Tip to tip across forehead	...	...	...	...	87
Span between tips	...	...	...	...	24½

Allowing eleven inches for breadth across forehead, these horns would be thirty-eight inches in length, and I reckon this is pretty near the mark.

Travancore has always been noted for big heads. Burke mentions one in possession of H.H. the Maharajah, "the right horn of which measures over forty-three inches." These are the longest horns of which I can find mention anywhere; but as the other dimensions are not given, I cannot say whether the head is a record in all respects. It would be interesting to know the history of this head, and to obtain full measurements. Burke says, "the length equals H.H. of Cooch Behar's best trophy," but no further information is given regarding the Cooch Behar head. There is a fine Travancore head in the Madras Museum :—

					Inches.
Length...	...	...	...	...	36
Girth ...	...	...	...	...	18
Spread ...	...	...	...	...	46
Tip to tip across forehead	...	...	...	...	?
Span between tips	...	...	...	...	29 (Burke.)

My own best head measures :—

					Inches.
Length...	...	...	...	...	34
Girth ...	...	...	...	...	18
Spread ...	...	...	...	...	40
Tip to tip across forehead	...	...	...	...	79
Span between tips	...	...	...	...	23

In the *Journal of the Bombay Natural History Society*, Vol. XV., No. 4, for June, 1904, the measurements of a head presented to the Museum in 1897 are given. The bull was said to have been killed by wild dogs in Salween, Burma, and the *Journal* characterises this head as "the record." The measurements are :—

				Inches.
Length, right horn	...	...	...	39
„ left horn	...	...	...	39 $\frac{1}{2}$
Girth, right horn	...	...	...	20 $\frac{1}{2}$
„ left horn	...	...	...	20 $\frac{3}{4}$
Spread, outside	...	...	...	43 $\frac{1}{2}$
„ inside	...	...	...	35 $\frac{1}{2}$
Tip to tip across forehead	...	...	...	93 $\frac{1}{2}$
Span between tips	...	...	...	18 $\frac{1}{2}$

While according to this magnificent head the fullest possible meed of admiration, I cannot, as a Wynaadian, admit the validity of its claim to record honours. For facility of reference, I place the dimensions in juxtaposition with those of the bull bagged by Mr. Ditmas, in Wynaad, to which I have referred above :—

			Bombay head.			Mr. D.'s head.
			Inches.			Inches.
Length...	...	...	39 $\frac{1}{2}$	...	...	40
Girth ...	...	...	20 $\frac{1}{2}$	...	...	20 $\frac{1}{2}$
Spread ...	...	...	43 $\frac{1}{2}$	...	...	44
Tip to tip across forehead	...	...	93 $\frac{1}{2}$	...	...	?
Span between tips	...	...	18 $\frac{1}{2}$	...	...	23

I greatly regret that I am unable to give the length from tip to tip across forehead in the case of the Wynaad head, because this measurement perhaps conveys the best impression of a bull's head on paper ; but, judging from the length of the horns, I cannot be wrong in assuming that in this respect the Wynaad head is at least the equal of the Bombay one ; and as in length, spread, and span between tips, the advantage is with

Mr. Ditmas's head, the claim of the Bombay Natural History Society's head is certainly not established. The absolute record, as I have said, must lie with the Travancore Maharajah's head, if the other dimensions are proportionate to the length of the right horn; failing this, I believe Mr. Ditmas's head to be the finest ever bagged, having regard to all the measurements.

The horns of the bison are dark at the base, greenish-yellow for the middle portion of their length, and black at the tips. At their junction with the cores, they are flattened; from here they take a bold outward and slightly forward sweep, while the tips curve inward and backward. This inward curve is wanting in old bulls, as the tips are always worn and blunted. They are corrugated at the base, the corrugations increasing both in depth and extent with age, till in old bulls the entire horn is rough and striated. Horns shrink appreciably in process of drying.

Sanderson writes:—"The largest bulls stand eighteen hands (six feet) at the shoulder I have never myself shot them above eighteen hands, fair vertical measurement." Blanford says:—"Large bulls are said to exceed six feet in height at the shoulder, but this is rare and exceptional, five feet eight inches to five feet ten inches being the usual height." I differ from such authorities as these with great diffidence, but after having measured many bison, I should put the average height of an old solitary bull at six feet, with the reservation that frequently that height is exceeded. Burke records three bulls over six feet—one shot by Col. Pollok being six feet ten and a-half inches; another by Sir W. Elliott, standing six feet one and a-half inches; and the third

by Lieut. R. M. Brind, standing six feet one inch. The biggest bull I ever bagged stood nineteen and a-half hands, or six feet six inches.

In colour young bulls and cows are a very dark brown, though occasionally in herds I have seen individuals which might be described as "rufous." This colour deepens with age, till old bulls are almost if not quite black. These patriarchs are nearly devoid of hair on the upper part of the body, and they invariably have a greasy exudation from the skin. In speaking of this Sanderson writes: "The hide of old bulls after a sharp hunt gives out an oily 'sweat.'" But I question whether this discharge is sweat, for the skin of bulls I have stalked and killed in their tracks always had this greasy appearance, though they had undergone no exertion. It seems to me to be rather a natural exudation from the pores; though it is of course possible that the sharp pain inflicted by a bullet, even when that bullet dropped the bison at once, would instantaneously induce a sweat, just as a wound brings out a "cold" sweat on the forehead of a man. All four legs are cased in dirty white stockings from slightly above the knees to the hoofs. The upper part of the face is of the same dull white—occasionally yellowish-white—this colouring being more pronounced in old than in young animals. The hair at junction of legs with trunk is a golden chestnut. The muzzle is pale, and, as said already, the eye is pale blue.

The range of the bison is very extensive. He is found over the whole peninsula of India wherever conditions are suitable, that is, wherever there are hills covered with dense forest. Eastwards, he inhabits Assam, Burma, and the Malay Peninsula.

Judging from the accounts I have read, he appears to have been exterminated in certain parts of the country where once he was numerous ; and being extremely impatient of man's proximity, in other localities he has been driven away by the march of cultivation. On the West Coast of India, however, he possesses an inviolable sanctuary in the enormous virgin forest which clothes the Ghats. I know places in these forests, at the foot of the Wynaad Ghats, where probably no white man but myself has penetrated—where even the Nayaka is on unknown ground—which are perfect asylums for bison. There I have seen herds of from ten to thirty, and many a time have I sat and watched such herds. In localities where they are likely to be disturbed bison never congregate in herds of this size. Every herd, whether large or small, is ruled by a master bull, to whom the younger and weaker bulls pay the greatest deference. As the lord of a herd is always a bull in his prime, while a solitary bull is invariably an old and scarred warrior, it seems a reasonable inference that the latter is a bull whose dominance over a herd has been successfully disputed by a younger and more lusty rival, and who thenceforward elects to lead a hermit's life, to brood in solitude over his lost sovereignty. The solitary bull ought to be a morose and savage beast by rights, ready to pick a quarrel on the slightest provocation ; but an attack by an *unwounded* bull is very exceptional. Frequently the novice in bison shooting mistakes the blind rush of a bull at scent of a man for a charge, if it happens to be in his direction, and what was really a frantic effort to escape is distorted into an unprovoked attack. I remember once, when following up the track of a bull, hearing a tremendous crash in the

jungle in front of me, which was very thick just at that point. I slipped behind a tree, and the next moment out bounced the bull, tearing along at his best pace. Had I been ignorant of the language, and thus unable to make inquiries, I should have gone away in the firm conviction that that bull had tried to wipe me out without the least provocation. But on inquiry, the incident was explained in a very simple way. Just before it happened, we had come to a glade in which the bull had been feeding, and his marks were all over it. By good luck, Chic Mara and I hit off the proper track at once ; but another Nayaka named Boma had made a cast round the glade unnoticed by us, with the object of picking up the forward track. In doing so he gave his wind to the bull, who was lying down close by, and out he came like a jack-in-the-box, straight in our direction. His object was flight, not fight. Even wounded bulls more often than not die tamely.

The food of the bison consists chiefly of grass, but he also browses on the young shoots of the bamboo and of certain jungle trees. He feeds from early dawn to about nine or ten o'clock, and then lies down to chew the cud and snooze in the shade of a bamboo clump or under a large tree. In quiet country where he has not been disturbed, his couch is never far from his last grazing ground ; but where there is cultivation close by, or the bull knows he is likely to be disturbed, he will retire to cover much earlier, and go a long distance into it before couching. The siesta lasts till about 3 P.M., when he again seeks food and water. He lies down shortly after dusk, and makes for his feeding ground again before dawn. A solitary bull will stay in the same neighbourhood for several days, when the feeding is good and the jungle quiet.

In my preserve—a long valley clothed on both sides with dense forest, and with a large extent of grass land in the centre—the movements of bison are timed with the greatest accuracy. In the valley itself, as I mention elsewhere, only solitary bulls are found ; but the gorge runs out to lighter jungle on the flat country below, and there herds are numerous. As this tract is ideal bison ground, with unlimited water and grass at all periods of the year, these herds do not roam much. I have visited this low country at all seasons, and bison have always been plentiful. During the monsoon the solitary bulls, though they do not join the herds, are found in their vicinity—or to speak more accurately, they also keep to the lighter jungle on the flat at this time of year. Towards the end of the year they begin to ascend the hills ; but it is in April and May, when the fresh grass has sprung up after the annual hot weather fires, and that my forest-clad valley becomes a preserve for solitary bulls. At that season it is a veritable sportsman's paradise ; and as the middle part of the valley—the chief feeding ground—is open country, bison can often be stalked, a method of shooting which, I need hardly say, is incomparably more exciting and pleasurable than it is to follow up the track of a bull and get a hurried shot as he dashes away.

A solitary bull is frequently found in company with a younger one, the latter, I conjecture, being seduced by the veteran's tales of happy feeding-grounds. And it is not unusual to see two bulls, too young to be called solitary, together, and away from the herds to which they rightly belong. These excursions by herd bulls are probably made in search of pasture when the cows are gravid. So far as I know, there is no regular

breeding season ; but the majority of the calves are dropped at the end of the S.-W. monsoon, for at that time every herd contains a number of tiny youngsters. I have also seen quite young calves with a herd in April.

The origin of the common domestic humped ox, *Bos indicus*, is involved in mystery. So far, no ancestral form has been found among the fossil oxen of India ; and it differs so radically in structure from *Bos taurus*, the domestic ox of Europe, that no connection between them can be established. Blyth assigns it an African origin, but the evidence in support of this theory can scarcely be regarded as convincing. There is, however, little doubt that the ancestral form of the gaur has been discovered in *Bos namadicus*, an Indian fossil ox of the Pleistocene period, which does not differ greatly from the living animal save in the superior size of its horns.

My bison preserve is a valley on the edge of the Western Ghats, about nine miles long and two miles broad. It runs almost East and West, and on both sides is bounded by high hills. North and South the grand forest follows the line of the Ghats ; while to the East lies more open country, and on the West the valley runs down into a plain which extends to the foot of the hills on that side. Originally the whole valley was one unbroken stretch of virgin forest ; but in the late 'fifties and early 'sixties some five hundred acres, lying on both sides of the river which bisects the valley, were cleared for coffee. Twenty years later, the land passed into the possession of one of the Wynaad Gold Mining Companies ; and the cultivation being neglected under the new régime, weeds became rampant, and eventually the whole of the estate was

burnt out. On this part of the land, owing to the annual fires, there is no secondary growth of jungle ; so that, though the hills which ring the valley round are still crowned with primeval forest, a long, narrow stretch of grass land extends on both banks of the river. Every year, at the beginning of the hot season, I systematically burn off the rank grass ; and with the first rains of Spring the hillsides bordering the river are covered with a crop of fresh, tender grass, which forms an irresistible attraction to bison, sambur, and other game. In some portions of the old estate the grass—being of the *hurriali* variety—never grows coarse, and in these spots bison can be found all the year round. But after the Spring showers the whole valley becomes a bison preserve, and it is during the months of April and May that I obtain the best sport. Were I bent on slaughter, I could bag a dozen bulls every season during these two months ; but having brought my tale up to twenty, I now cry ‘ Hold, enough ’ ; and though I visit the valley often, I let these grand animals go unmolested, unless a bull with an exceptionally fine head finds his way into my preserve. One remarkable fact connected with this valley is that never have I seen a cow bison in it. I have known seven bison to be in the valley at the same time, but all solitary bulls. My Nayaka game watchmen patrol the land constantly all the year round, and as I have specially directed them to watch for cow bison, I should certainly hear of their advent. But for some reason with which I am not acquainted, the bovine ladies fight shy of my preserve. And yet, a few miles lower down—where the valley runs out into the plains, and the dense forest gives place to a lighter growth of bamboo jungle interspersed with teak and blackwood—

herd bison are common ; and here I have often come across assemblies of twenty or thirty, nearly all being cows.¹

The bison that visit this valley annually have such well-regulated habits, that usually when we find the fresh track of a bull, our programme is ready made. South of the river is a stretch of grass land perhaps half a mile wide, and immediately above this the forest begins. A bison which has fed during the night and early morning on this side, invariably retires to the heavy jungle for his mid-day siesta. North of the river comes first a belt of light jungle, then a belt of grass interspersed with large trees which were left when the jungle was felled originally, then dense virgin forest following the Ghat line. We—that is, my trackers and I—know for a certainty that any bull which has fed on this bank is lying up in the light jungle bordering the river ; and we know too that if disturbed he will make for the forest on the south bank. From the light jungle a number of elephant paths lead down to the river ; and according to the point at which the bison has entered this cover, we can generally tell the very path he will choose. If, in our morning prowl, we come across fresh tracks on the south bank, we carry them as far as the heavy forest to ascertain whereabouts the bison is lying up, and then take up a position which commands a view of the forest edge, where we wait till the bison emerges again about four o'clock in the afternoon—though often much earlier—for his evening feed. On the other hand, if we find the fresh tracks of a bull on the north bank, my trackers wait at the point where he has entered the

¹ This description no longer applies to the Valley, for bison have completely deserted it since the planting of rubber on the foothills.

light jungle, while I go round and down to the river, to command the path we expect him to take when roused. Allowing me half an hour's grace to reach my post, my men follow on the bull's track ; and the chances are ten to one that things turn out exactly as we anticipate : that the trackers come upon the bull lying down : that he at once makes for the south side of the river ; and that I get a shot as he crosses the stream. Sport is a matter of *bandobast* ; and knowing the ground as we do, and the habits of the bison, I can generally make sure of any bull whose tracks we find. But our plans do sometimes "gang agley" ; and I remember one *contretemps* which nearly resulted in the wiping out of my favourite Nayaka Chic Mara. We had found the fresh track of a bull on the north bank of the river early one morning, and I left Matha and Chic Mara to follow it after I had as usual gone round. A third tracker, Boma, was with me, carrying my big rifle. Just as we reached the river, I heard a scramble in the high growth of wild arrowroot which fringed the bank, and the next instant a grand bull bison came into view on the further bank of the stream. He was almost end on, and I fired for the middle of his body with my twelve bore Paradox. The bullet raked him, and he fell into the water with a tremendous crash, stone dead. We crossed the river, and followed it until we came opposite to the path down which we expected the first bison to arrive, and here I took up my post. A long time passed, but neither bison nor trackers put in an appearance ; and I was on the point of sending Boma back to see what had happened, when the two Nayakas came down the path and joined us. They were both in what is commonly called a "blue" funk, though green

would better describe the colour of their physiognomies. On my asking the reason of the long delay, they told me they were sitting at the edge of the jungle, waiting till they judged I had reached my post; and that directly I fired in the valley below, the bison came rushing back along his tracks. He had evidently been lying just inside the cover, for he was on them before they could move. Matha—who is as agile as a monkey, and the most marvellous tree climber I have ever seen—rolled into the jungle, out of the bull's way; but poor Chic Mara was too “flabbergasted” even to do this, and could only throw himself full length on the ground. He was right in the path of the on-coming bison; but—*mirabile dictu*—the bull cleared him in his stride and rushed on; and Chic Mara picked himself up with no more damage than a shock to his nerves. His escape from being trodden on was most fortunate, and incidentally it proves what an inoffensive animal an unwounded bison is. When frightened by the sound of my rifle, the bull's sole thought was flight, and he cleared Chic Mara's body just as he would have cleared a log or any other obstacle in his road. It sometimes happens that when a bison is suddenly startled, he mistakes the point from which the danger threatens, and rushes in the sportsman's direction; and in such a case this would look suspiciously like a charge; but it will generally be found that the rush is preceded by the unmistakable noise a frightened bison makes—a sound between a snort and a whistle—and this is sufficient evidence that mischief is far from his intention. A cow bison with a newly-born calf will charge an intruder without hesitation; but my experience is that a deliberate charge by an unwounded bull is very exceptional.

To the ordinary native, every animal he sees is out of the common run, and as a rule I give little credence to his tales. If a cooly puts up a sambur stag on his way to work, he will tell you "he had horns as thick as my thigh"; let a tiger kill one of my cattle, and the herdsman will spread his hands out three feet apart to describe the size of his head; and so the exaggeration goes on through the whole gamut of the animal creation, from a muntjac to an elephant. When I first knew them, my Nayaka trackers were prone to tall stories of this kind; but now that we understand each other thoroughly, they have learnt that they reap no advantage from such yarns, and when they report that an animal is "*bhala dhodu*" (very big), I can believe them.

On several occasions Chic Mara had reported to me that in the course of his rounds he had seen a colossal bull bison in my "preserve," and I had made three excursions to the foot of the valley, on the strength of these reports, with the object of seeing the monster for myself, but without success. So, when he came over one day to say the mysterious bull was again in the valley, I told him I was too sceptical to make another jaunt; and that as the Fates had evidently decreed I was not to see this marvellous bull with my own eyes, we had better leave him alone. This mild sarcasm put Chic Mara on his mettle; and he earnestly begged me to make one more trip, assuring me that this time we should find the bull without fail, as he had taken up his quarters in a piece of jungle surrounded by fresh grass, which would afford him "*theni*" (food) for several days. I gave in, and we started that afternoon to make acquaintance with this exceptional bison.

The month was May, and the weather showery; so I

decided not to take my tent, but to use an old bungalow which stands at the head of Bison Valley. Early the next morning we were ready for our long jaunt, and as I stepped out of the bungalow at 6 A.M., I could not resist pausing for a little to admire the magnificent view. Below us the valley ran down for miles in waves, like the curves of a switchback railway, the high ridges on both sides clothed to their summits in forest. Along the stream which coursed down the centre lay the old coffee clearing, a vivid stretch of green—the grass looking like a carpet of velvet, though in reality several feet high. Behind me towered Chic Hadiabetta, over which the sun was just peeping, touching the summits of the grand Vellarimallais opposite with bands of golden light: while far below, so far that the giant trees seemed shrubs, I could see the plains, framed like a picture by the encircling hills. Dense masses of mist, soft and white as cotton wool, rolled up the valley from the sea, to be hurled back and borne away in streamers directly they met the strong breeze at the valley-head. And out of this whirling, writhing sea of white, the rocky crown of Dhod Hadiabetta stood up, stark and grim, four-square to all the winds of Heaven.

But Chic Mara softly reminded me that we had a long way to go, and that bull bison seek cover before the sun gets hot, so off we set. At the foot of the hill below the bungalow, the path bifurcates, a track leading down the valley on either side of the river; and we took the one on the right bank. Some three miles down the valley we found the fresh track of a bull leading across the path, and as this had only been made an hour or so before, we concluded the bull was in the belt of jungle lying between the path and the river.

“A bull in the hand is worth two in the bush,” I thought, and suggested that we should follow up the track ; but Chic Mara stoutly maintained that “the bull in the bush” was worth two of this one, so we pushed on.

It was nine o'clock before we reached the flat at the foot of the valley where Chic Mara had marked down the big bull ; and the three men I had with me spread out to look for the morning track. To find this was not an easy matter, as the bull had fed all over the flat, which was covered with short, succulent grass, and his footprints were everywhere. But at last I hit off a fresh trail, leading up the hill in the direction of the heavy forest above us, and after a cast or two we decided the bull had decamped. Evidently we were too late to catch him at his morning feed, and he had started to take cover for the hot hours of the blazing May day. There were two courses open to us : to wait till the afternoon, on the chance of his return to his feeding ground, or to follow the trail and come up with him where he had couched. As I did not feel inclined to twiddle my thumbs for several hours in the stuffy valley, and as it seemed likely that the bull might feed closer to the forest in the afternoon, I decided to follow him up. So I sent Chic Mara and Masigan on ahead, while I and my gun cooly Boma followed fifty yards behind, just keeping the trackers in sight. This is a useful tip when following a trail which promises to be long, as one can walk in comfort when relieved from the necessity for picking one's steps. To a Nayaka, silent walking comes naturally ; but it costs the sportsman an effort, and to avoid treading on a dry stick or leaf every foot of the way through hours of tracking, is rather a trial. From constant practice, we were well up in our parts on occasions like this.

Two trackers went ahead, one to pick out the trail, the other to keep a bright look out in front ; and when I was wanted, a wave of the hand summoned me.

We carried the track on for perhaps half a mile, when the trackers stopped and dropped down in the grass. I crept up to them, and Chic Mara told me he had caught a glimpse of a bison a couple of hundred yards in front. At the moment he was hidden by a clump of bamboos ; but Chic Mara averred he was not the big bull we were following. I shifted my position a little to the left, and then I saw the bison ; a decent bull, but nothing out of the ordinary. I began to think Chic Mara had been the victim of pseudo-blepsis ; but he still declared the bison in view was a different bull altogether. "Wait till he gets a bit more ahead, and then if we find his track distinct from our track, Master will believe me," he said. The bull was moving leisurely along, stopping now and then to nibble the grass, and it was a quarter of an hour before we dared to advance. Sure enough, a little in front we came on double tracks. It was clear that the bull we had seen had come up a ravine to our right, and his tracks crossed those of the bull we were after, the latter being plain in a direction far to the right of the line taken by the bull who had just disappeared. And there was no question about the difference in size : Chic Mara's bull had left prints almost twice as big as the other. We waited half an hour to give the smaller bull time to get well away, and then again took up the track. Suddenly the Nayakas stopped and motioned to me to come up. "Look, look," said Chic Mara when I joined them, "there is the big bull, and did I lie when I told Master he was as big as an elephant?" We were on an old road at the time,

and following Mara's finger, in the high grass below the road, and three hundred yards away, I saw the biggest bull bison I ever set eyes on. Six feet high though the unburnt *dhubbay* grass was, the ridge of the bull's back showed clear over it; and when in a moment he raised his head, he did veritably look as huge as an elephant. Telling the men to squat where they were, I took my Paradox from Boma, and crept along the road on hands and knees. The wind was right, and when I judged I had covered a couple of hundred yards, I cautiously rose, and looked down over the sea of grass. The bull was standing like a statue, and I could have picked my shot; but he was a hundred yards away and I determined not to risk a long shot at such a monster. So with redoubled caution I crept on another fifty yards. But when I again looked down over the grass, no bull was to be seen. Heavens, had the slight rustling I made in my progress through the *dhubbay* grass sent him off, and lost me my chance at this grand prize? Oh, what a fool I called myself for not having taken my shot when opportunity offered! But hope returned when I looked back at the Nayakas, and they signalled that the bull was still there. Not a yard did I dare advance: I could only kneel in the grass and await events. Shortly, the bull trotted out of the small depression in the hillside which had hidden him; and evidently he had an inkling of danger, for he came a step or two towards me with his head in the air—a menacing posture always assumed by a bison when he suspects danger, the nature of which he cannot determine. In that position I could do nothing, for the bull's body was almost completely hidden in the grass, and with his head held so high I could not aim for the brain.

For several seconds he gazed straight in my direction, then with a whistling snort of fear he wheeled and ran a short way down the hill. This time he was broadside on, and as he was evidently very suspicious, I aimed carefully at his massive neck, and pulled the trigger. What the effect of my shot was I could not tell, for when the smoke cleared, all I saw was a waving stretch of grass: the bull had disappeared. But in a moment the trackers joined me, and Chic Mara said he had dropped in his tracks on receiving the bullet. Caution was necessary, for the grass was over our heads, and in such thick cover the advantage was all on the side of the bison. So, with Chic Mara behind me carrying my eight-bore, I pushed my way through the *dhubbay* grass obliquely, towards a clump of large trees where the bull had been standing when I fired. Up one of these, which grew a little to one side of the spot, Chic Mara climbed, and he called down that it was all right, the bull was lying motionless. So without more ado we made a bee line for the fallen bison. Sure enough, there he lay stone dead: my bullet had killed him in his tracks.

In point of size this was the largest bison I have ever shot; and he measured between uprights driven in at his shoulder and the point of his hoof nineteen and a half hands. At one time his head had evidently matched his phenomenal bulk; but the points of the horns were very much worn and broken.

On another occasion I had been out for a week but so far had not fired a shot. Not that game was scarce. I had seen many sambur, some fine stags amongst them; but I was camped on first rate bison ground, and as a good bull was what I wanted, I did not wish to alarm the country by firing at anything else.

During my week's wanderings I had come across two herds of bison, but as they consisted of cows and young bulls, I left them severely alone ; a solitary bull I determined to have, or nothing.

I was somewhat disappointed at my ill luck, for before starting my trackers had brought me news of two old bulls at least ; and it was this information mainly which had induced me to make the trip into the low jungles at a very unhealthy time of year. It was the height of the hot weather, and this militated greatly against success, for the whole forest was covered with a carpet of dry leaves which made silent walking an impossibility ; and in these heavy jungles, unless you can walk without noise, you may whistle for sport. So I determined, unless we came across a solitary bull the next day, to throw up the sponge and hie back to my breezy bungalow.

That evening, after dinner, we made our plans for the morrow. I and my gun carrier Matha were to climb to the top of the ridge above the camp, on the chance of bison having crossed from the K. valley beyond ; while my Nayaka trackers, Chic Mara and Masigan, were to work along the river where the grass was still fresh and green, in the hope that an old bull might have been tempted, like the herd bison, by the good grazing.

With the first streak of dawn we started, to meet again at noon at the camp, and report progress. It was a steady two hours' climb to the summit of the ridge, through grand forest all the way. Half-way up a sudden cracking and crashing told us we had dropped right into a herd of elephants. They were feeding in a hollow on the mountain side, and we crept back and made a detour round this. Little Matha

was in a state of ghastly "funk," for the Kurumbas, like all the jungles tribes, entertain a most wholesome dread of the elephant. Climbing a little higher, we were able to look down into the basin in which the herd was feeding, and we made out eleven, including a fine tusker. Several times we disturbed sambur who vanished like grey shadows amongst the trees, and when at last we emerged on the rocky, treeless ridge we saw a herd of five. Along the ridge we worked, looking for tracks ; but though droppings and marks of bison were numerous, none were fresh, and as we set our faces for camp, it seemed to me that a return to my bungalow next day was a foregone conclusion.

We reached the tent about 11 o'clock, and as the Nayakas had not yet come in, I sat down to breakfast. This was soon despatched, and on coming out of the tent I saw my trackers squatted under a tree. "Well, Masigan," I said, "no bison have crossed over from K. lately. What news do you bring?" For answer, Masigan "smole" a smile from ear to ear. This was a sign of good news, and prepared me for his tale. Close to the river he had found the fresh tracks of a solitary bull, and had followed these down for some distance, when he had come on the bull lying down. Satisfying himself that the bull was worth having, he had started back with the news. Our preparations were quickly made, and by two o'clock we had reached the spot where the trackers had left the bull. But he had moved on. For a mile the tracks—evidently those of a large bull—led along the river bank. At this point the bison had drunk and crossed. We waded over, and followed for another mile, till we reached a second large stream.

Here the jungle was lighter and the ground harder, which made tracking difficult work. Added to this, the bull had stopped to crop the grass in every glade, and cast after cast was necessary. Any decent bison would have stopped long before this for his midday sleep, but still our bull held on. At last we came to where the bull had couched under a tree, and Masigan thrust his toe into a pile of droppings. "He did not lie here very long," was his comment, "these droppings are two hours old." It was now well on into the afternoon, we were miles from camp, and I began to despair of coming up with the bull. He was making for the head of the long valley, where years before a coffee clearing had been opened which was now merely an oasis of succulent grass in the centre of the forest. "We'll find him *there*," said Masigan confidently. At length we reached an old road. The bull had crossed this, but there were signs now that he was not far ahead. Above and below at this point was a huge sheet of slab-rock, and while the men worked out the track over this, I crept on along the road, which some distance in front bent sharply. I reached the bend, and cautiously peered over the bank. There, on the road and not fifty yards away, I saw over the brushwood the solemn visage of a grand bull. I was carrying my .500 Express with solid bullets, while Chic Mara behind had my 8 bore. "I can brain him to a certainty," was my first thought, and I raised the Express. But then came the reflection, "better make sure and give him a knock-down blow," so I crept back. The men were some distance up the hill behind me (for the bull had gone some way up and then turned down to the road again), and it took a little time to signal what I had seen and call

them down. "Quick, Mara, the big rifle: now the cartridge bag"—but no bag was forthcoming, Mara had dropped it! There was nothing for it but to have at the bull with the Express; so, telling the men to stay where they were, I crawled back. The bull had now changed his position, and was standing broadside on, partly hidden by the undergrowth. But his shoulder was uncovered, and drawing a bead on this, I fired. For a second I was blinded as the smoke blew back in my face: then looking under the white curtain I saw the bull coming down the road like a runaway engine. Simultaneously I gave him the other barrel and shouted to the men to look out; and as there was neither time to run nor to seek cover, all I could do was to make myself as small as possible against the bank. Round the bend thundered the bull: fortunately he took it wide, but still passed so close to me that there was not more than six inches between his right horn and my anatomy. So great was his impetus that he could not keep to the road, but crashed into the jungle below it, fell, and rolled down to the stream below, where we heard a tremendous commotion in the high growth of wild arrowroot as he strove to regain his feet. Then there was silence for full five minutes, and I made sure he was dead. But Mara, who had climbed up a tree near, came down to say that the bull was standing in the arrowroot, and evidently very sick. So we held a council of war. The undergrowth below was so dense that the bull was quite invisible from the road, and to have tackled him in this would have been to court disaster. Besides, it was fast growing dark, and we had miles to go to camp. "And," said Masigan to clinch the argument, "he is badly wounded. If we

leave him, and let him lie down, he will never get up again." I myself felt sure, as he made no attempt to get away, that he was a dead bison ; though I would have been better satisfied had he carried a couple of eight-bore instead of Express bullets. So we decided to leave him till the morning.

We were on the ground again by seven A.M., and found that the bull had climbed up the farther side of the valley. Tracking was easy, as the blood had poured from the poor beast's wounded shoulder. On the crest of the hill he had lain down, evidently exhausted by the short climb, and his couch was a pool of blood. A little distance ahead the blood was quite fresh, and Masigan whispered to me to keep a sharp look out. Another hundred yards, and Masigan pulled up with the words : "*Nodu aiya, karti.*" (Look, Sir, the bison.) I looked and looked to where he was pointing, but no bison could I see. And here I may remark that the way in which my Nayakas can distinguish objects in the deep gloom of the forest is nothing short of marvellous. I am blessed with phenomenal eyesight, and in the open can hold my own with my trackers ; but once in the forest I have to take a back seat. "Creep up to that log in front and you will see him," said Masigan, pointing to a huge blackwood which had fallen years before, and lay across the path. I climbed on to this, and from my perch could see the hindquarters and tail of the bull, as he stood motionless in a dense patch of underwood. I must have made a slight noise in getting on the log, as the bull turned like lightning, and stood facing me with his head held high over the brushwood which now entirely screened his body. In that position a head shot is generally ineffective, but I had no choice.

In another instant the bull would have been off again, and that might mean miles of weary tracking. So steadying myself on the log, I fired straight at his nose with the big rifle. The effect was immediate. The bull staggered: recovered himself with a mighty effort: and then came for me like an arrow. Again flight or the cover of a tree was out of the question. I had only time to drop off the log and throw myself under it. Just what happened in the next second, I am not prepared to say; but I heard a tremendous smash as the bull hit the log above me, and his landing on my side of it was like an earthquake. He was on his legs again in an instant, and I did not feel exactly comfortable as he stood shaking his head from side to side, searching, as it seemed to me, for the puny object which had caused him such pain. Fortunately, he did not look back, and I was relieved to see that all the men had made themselves invisible. The bull paused for a few seconds, and then held on down the hill at a walk. Soon a curly black head peeped round a tree: then another: and Matha and Chic Mara walked into the open, laughing. But where was Masigan—who had been standing at my side when I fired? A chuckle behind made me turn, and my sable friend crept *out* of the log! The huge trunk was quite hollow; and Masigan, grasping the fact in a twinkling, had found a secure sanctuary inside.

We were soon on the track of the bull, and in a few hundred yards came up with him. He was walking slowly along, and evidently his bolt was nearly shot. As he crossed an open glade, I got in another bullet from the heavy rifle which brought him to his knees. This shot took him just under the spine, and completely paralysed his hindquarters; but the gallant brute was

game to the very last. As we approached, the bull contrived to get into a sitting posture, with forefeet spread wide apart. He made frantic efforts to reach me, but the last two ounce bullet had done its work too well, and that mighty body was dead. For a moment I watched him with a feeling akin to awe: then I went close up and brained him with the Express. So ended my fight with this grand bull; and as I sat down to enjoy a well-earned pipe, I heard the morning stars sing together for joy, and life was all *couleur-de-rose*.

One afternoon in April 1904 I was coming through Bison Valley with Masigan and Chic Mara, on my way back to M.R. bungalow, after a trip to the foot of the hills. We had got about half-way up the valley, and were walking along somewhat carelessly, when fifty yards ahead on the path up jumped a bison. He paused for a moment with his snout in the air to gaze at the intruders on his domain: then dashed into the undergrowth below the path. The surprise was mutual, and I did not recover myself sufficiently to fire till he was disappearing, when I hit him through the body with a bullet from my 12-bore Paradox, which I was carrying at the time. On running up to the spot where he had plunged into cover, I heard a commotion in the wild arrowroot below. This formed an impenetrable screen; but shifting my position a little, through a vista in the jungle I saw the bull lying down in the stream. The distance was full a hundred and fifty yards, and I could not get a clear shot through the bushes; but just to the right of the bull I noticed a huge boulder, and for this I made at once, with the object of finishing him with a shot in the head at close range. Masigan begged me

to give him a bullet from the 8-bore, and as matters turned out, this would have been the wiser plan ; but the bull seemed so evidently done for, that I thought it better to get close up and brain him. Directly we stepped off the path into the jungle, the bull was hidden ; and the noise we made in pushing our way to the rock prevented our hearing what he was doing. It took us perhaps five minutes to force our way through the tangled, thorny scrub ; and when we reached the rock, and I ran round to administer the *coup-de-grâce*, the dying bull was gone ! He had scrambled to his feet, and made off up the opposite bank. We pushed up the steep hill at our best pace ; but the track showed clearly that the bull had negotiated the ascent without difficulty, and it was evident he was not so badly hit as I had thought. We followed the track for a mile without a sight of the bull ; and as it was late, and we had six miles to go to the bungalow, we decided to leave him till the morning.

At the bungalow, I found Hamilton awaiting my arrival ; and at daybreak next morning he and I started, with the two Nayakas, Masigan and Chic Mara. We picked up the track from the point at which we had left it the previous evening, and carried it for two miles or so till we reached the edge of the old cultivation. Here the old estate was a sea of *dhubbay* grass ; and as it had not yet been swept by the annual fires, it was over our heads. Pushing through this was slow and tiring work, and the heat was stifling, so by the time we had crossed the old estate and reached the forest at the further side, it was eleven o'clock, and we were not sorry to indulge in a short rest.

The grand forest the bull had now entered was comparatively free from undergrowth, and our progress was more rapid and more comfortable under the dense cool shade. But though we had come fully five miles, there were no signs that we had gained on the wounded bison ; and Masigan said it looked as if he had gone right away to K. without stopping. At last, about a mile inside the forest, we came to a place where the bull had couched. His form was a pool of blood, and as from this point the blood track was fresh, our hopes brightened considerably. In another half mile we came up with him, but the wind was wrong, and a crash some distance ahead was the only intimation we had of his presence. This is the great drawback to tracking any wounded animal : be the wind wrong or right, one can only follow. Several times more we put up the bull without seeing him ; but though we could not get a shot, we were now certain of one point in our favour—that the bull could not travel very fast. At length we reached a patch of very dense and thorny jungle, through the centre of which led an elephant path. Once in this lane, the jungle rose up on either side in an impenetrable wall of thorns ; and it flashed across my mind that we should be in an awkward fix if the bull selected this spot for a charge. As if in answer to the thought, at that moment we heard a loud snort a short way ahead at the end of the lane, and as this was not followed by the usual crash, it was evident that the bull was listening and contemplated mischief. I was leading, and with my 8-bore to my shoulder I awaited his oncoming. Floor him I must, directly he showed himself in the elephant track. No one moved : not a sound broke the silence for half a minute : then to our

relief another whistling snort and the noise of the bull breaking his way through the jungle told us he was once more in flight.

It was now 2 P.M., and H. declared he could go no farther. But I was determined to follow while daylight lasted ; so, taking Masigan as a guide H. turned off for the bungalow, while Chic Mara and I pushed on. For another four or five weary miles we carried the track, coming up with the bull at intervals, but always with the same result owing to the persistently unfavourable wind, until I also began to abandon all hope. But at last Chic Mara, who was a few yards in front, dropped suddenly to the ground, and creeping up to him, I saw our quarry. We were then on the summit of a hill which sloped steeply down ; and in a small swamp at the foot, three hundred yards away, stood our bison. His head was hanging down from pain and fatigue, and evidently his bolt was nearly shot. Fortunately, as we were so much above him, he had not got our wind. Motioning to Chic Mara to draw back a little, I told him to stay where he was till I had made a detour and headed the bull ; and that when he saw me appear on the crest of the opposite hill he was to come along the track, when I should get a shot at the bison as he climbed up towards me.

Carefully I worked my way round in a big circle, and, on reaching my position, to my delight I learnt from Chic Mara in dumb show that the bull was still in the swamp below and between us. From where I stood I could see Chic Mara on the opposite hilltop across the deep *nullah* ; but the bull was hidden from me by the close array of giant tree trunks that intervened. I signalled to my henchman to come on. I saw him stand up ; I saw him reach above his head : I heard the

crack of the dry branch he had seized. Oh, the sickening suspense of the next few moments, as I waited to see if the bull would fall into the trap! Glory be to all the Saints in the sportsman's calendar! I heard Chic Mara call "*ninegay yethurage buruthathay*," and the next instant I saw the bull coming slowly along between the trees, so done that he could not raise a trot.

Waiting till he was within thirty yards, I stepped out into the open. The bull saw me at once and raised his drooping head. At that instant my bullet caught him in the centre of the chest, and with a bellow of pain he collapsed—dead. I may say here that, with one exception, this was the only occasion on which I heard a bison give vent to any sound when dying.

I looked at my watch: it marked half past five. We had taken up the track at 7 A.M., so that long stern chase had lasted for ten and a half hours. I was drenched to the skin with sweat: my cheek had been badly torn by one of those infernal racemes of thorns—almost invisible but strong as hooks of steel—that the rattan sends down: the tiffin cooly had vanished into the *Ewigkeit* and I had not had a morsel of food since the early morning: I was footsore, with a tramp of eight miles back to the bungalow in prospect. But, standing over my bull, what recked I of these trivial discomforts? That grand prize would have made amends for far more than a scratched face and a pair of weary feet.

To the seeker after bison will fall many such a fag, and often without the trophy at the end that makes all trials forgotten. The chase I have described above took me perhaps twelve miles (and twelve miles over the forest clad hills of the Wynaad Ghats is no light



*Drawn by J. Macfarlane
From photo. by the Author*

THE DYING BISON

Macfarlane

day's work!); and frequently I have had to cover a longer stretch even than this after a wounded bison. But recently, and by a happy accident, I discovered an almost infallible way of making a bison, wounded or unwounded, stop within a quarter of a mile of his first rush. I need hardly add that wild horses would not drag from me the secret!

In writing of bison, Sanderson gives this advice to the novice:—"In any case, whether a shot has been fired or not, the sportsman should run after bison without delay. Perhaps only one animal has seen the danger, and the others often go but a few yards before they pull up in hesitation. Bison have a formidable appearance when thus roused, but they are not dangerous in reality; they do not travel as fast as they appear to do from the noise they make, and several shots may almost always be obtained by a good runner." It is with diffidence that I traverse any statement made by such an experienced and practical sportsman as Sanderson; but I am bound to say that, in my view, no advice could be better calculated to lead the novice into trouble than the above. There would be little if any danger in running after herd bison the moment they dashed away, unless the herd contained a cow with a newly-born calf, in which case the pursuing sportsman would almost certainly be charged. But to run after a bull—whether solitary or belonging to a herd—in this fashion immediately after wounding him, would be simply to court an accident if he were badly hit. In the thick cover in which bison are generally found it would be impossible to run silently—to *walk* without noise is a difficult feat enough—and if the bull after going a short distance found his wound put flight out of his reach, in nine cases out of ten he would

determine to fight. The noise made by the gunner, hot-foot on his track, would enable the bull to follow all his movements: pulling up sharp, he would face round and, screened in some impenetrable thicket, wait his tormentor's advent: and before that tormentor could realise what had happened, he would find the bull on top of him—a complication from which the tormentor usually emerges second best. Several times I have known a badly wounded bull exhibit the greatest cunning when waiting for his pursuer; and so far from telling the "griffin" to run after a wounded bull, I would advise him to exercise the greatest caution in following up the track. I know of a case in which a tyro who followed Sanderson's maxim, and ran after a bull directly he wounded him, escaped with his life by what I can only call a special dispensation of Providence; and we should hear of many more such cases were it not that usually, and very sensibly, men prefer to exercise due caution in following a wounded bull.

I have spoken above of the cunning often displayed by a bison when hard hit. Elsewhere I have written of a bull who waited for me in the angle between two of the enormous buttress-like roots thrown out by a tree which is common in the heavy forests in Wynaad; and another instance recurs to me in which a badly wounded bull evinced an even greater degree of cunning. We came on the fresh tracks of a big bull early one morning near the northern limit of my preserve, and after following them into the forest for some distance, we found him lying down. As he sprang to his feet on our approach, I saluted him with a bullet from my Paradox; but the undergrowth being thick, I could not make out his position exactly, and the bullet took him rather far forward, smashing his

shoulder. He dashed away, and we followed. As there had been heavy rain the previous night, tracking was easy. I was leading, with Chic Mara just behind, carrying my large rifle, when, after going perhaps half a mile, I heard a tremendous noise *behind*, and turning round I saw the bull coming for us at his best pace. He had his head almost on the ground, and a shot in the neck when he was twenty yards away finished him. Both Chic Mara and I were non-plussed at the attack from the rear till we worked out the track a little further, when we found the bull—evidently feeling further flight useless—had doubled back, come a short way parallel with his former course, and then hidden in a dense thicket of *seegay* thorns. He had allowed us to pass his hiding place, and had charged from behind with the obvious intention of taking us by surprise. And in this he might have succeeded, had not his broken shoulder hampered his charge.

One afternoon—I see from my diary it was the 2nd of May, 1903—I was coming up Bison Valley after a long and fruitless tramp after a bear. We had climbed half the distance up to the bungalow, and had reached an old estate road, when a Nayaka named Kurria who was a short distance behind called out that two bison were on the hill above. Turning, far back in the direction from which we had come, and above the level we were on, I saw two huge black objects against the skyline. Bison beyond a doubt. It was late, and the bison were a long way off, but I could not forego the chance; so telling the tiffin cooly and another man I had with me to sit down on the road, I went back with Kurria and Chic Mara. The wind was blowing freshly from the forest above, and we kept to

the road till I judged we were under the bison ; then we began the stalk up the hill. I had marked a single tree some distance below the spot where we had seen the bison, and for this we made. The grass at first was over our heads, and it needed great care to push through it without noise. Clumps of unburnt *dhubbay* grass always contain a number of six foot dry blades, which rustle loudly at a touch. Carefully we parted each clump with our hands, but my heart was in my mouth with fear that the unavoidable *frou-frou* would alarm the bison. Fortunately, we soon reached better ground, with shorter grass, and on all fours I crept up to the tree. Waiting till I had recovered my wind, I slowly raised myself on my knees against the trunk, and peering round it, I saw the bison. Two splendid bulls, black as night, and not a pin to choose between them. During our stalk they had fed on a little, and were now opposite my position about eighty yards away, while the forest began about the same distance above them. Quite unconscious of the danger which threatened, they were cropping the grass, one with his head towards me, the other a few yards further back, broadside on. Such a perfect pair were they, that I could not decide which one to take ; but after another look, it seemed to me that the further bull had the better head, so I saluted him with a bullet from the big rifle behind the shoulder. Stepping to one side to avoid the smoke, I saw both bulls in full flight for the forest above. Just to my left lay a clump of trees, filling a depression in the ground ; and as the bulls had put this between us, I could not get another clear shot before they entered the cover. We ran up to where the bull had been standing when I fired, and found the track from here onwards marked with large

gouts of blood. We pushed on. I was leading, and had got to within forty yards of the forest, when Chic Mara clutched my arm and exclaimed, "Look out, sir, there is the bison." At first I could see nothing; but following Chic Mara's finger, I made out the head of the bull. A few yards inside the forest grew one of those odd trees with roots like gigantic buttresses, and in the angle between two of these the bull had ensconced himself. From this stronghold he was watching us intently, with only his head showing over the root. The sun had already dipped behind the high ridge above us, and in the forest the light was so dim that I could not get a fair sight at the bull's head. His having pulled up so soon meant either that he was past fighting, or ready to fight; and I determined, if the latter were the case, to try to make him give me a shot in the open. A little to my left, on the grass hill, grew a single large tree which would afford me a safe shelter in the event of a charge, so, telling the two Nayakas to make for the small *shola* below us, I advanced towards the bull. He was not slow to accept the challenge, for before I had taken a dozen steps forward, out he came. I slipped behind the tree; and as he passed so close that I could have touched him with my outstretched arm, I gave him both barrels into his shoulder. Down he went; and, the hill being steep and slippery, slid for some distance before he could bring himself up. Then, regaining his feet, he made for the forest obliquely up the hill. He was almost end on to me, and as I had only the two cartridges in the rifle—the others having been left in the tiffin basket in the hurry of starting after the bison—I did not care to waste one on a risky shot: besides I felt sure the bull was mine. We followed at a run;

and the bull having retreated slowly, we reached the forest just behind him. Arrived at the edge, I saw the bull standing a little way inside, and at that moment he collapsed at the foot of a large tree. As we approached he tried to rise, but the effort was beyond him, and all he could do was to shake his head at us. I walked close up, and brained him with a shot between the horns from behind.

On this occasion Chic Mara's phenomenally keen eyesight undoubtedly saved me from a mishap. The bull had taken up an impregnable position, and subsequent events proved that he was only waiting till we got within charging distance to make his attack. Had I not been forewarned, I should almost certainly have come to grief.

Chic Mara! Any record of the sport I have enjoyed on the hills of Wynaad, would be very incomplete did it not include you. What though you were, when I first caught you, a little savage, hiding like a frightened deer from the white man? What though you are only a jungle Nayaka now? You have stood by me with unflinching courage in more than one tight corner, ready, aye and willing, to sink or swim with the *dhoray* you love so well and serve so faithfully. To your peerless skill I owe many a grand day's sport, the memory of which will be with me when Time lays me on the shelf. It were base ingratitude to leave you out of this record of the sport we have shared. So, fidus Achates, with my best salaams, and as some slight return for your loyal service, I present your five foot nothing of wiry shape, and your smiling phiz—true index of your trusty heart—to the public!¹

¹ To my inexpressible regret he died after this was written from cholera contracted when with me on a visit to a rubber estate below the Ghats.



CHIC MARA

*Drawn by J. Macfarlane
From photo. by the Author*



No European can hope to equal, much less to surpass, the marvellous skill in tracking possessed by the junglemen, such as Nayakas and Kurumbas. In this respect my trackers, especially Chic Mara and Masigan, seem to be endowed with a sixth sense. But after years of practice, backed by an earnest determination to learn, I have attained to some slight degree of proficiency in the difficult art; and I say unhesitatingly that until I learnt to interpret the jungle signs, the full meaning of "sport" was a sealed book to me, as it must be to anyone to whom the word is synonymous with the mere killing of game. I can truly affirm that life holds no joy so keen, so exquisite, so unfailing as the study of the Book of Nature, spread out afresh each dewy morning for the trained eye to read. Trust me, the man who allows his success to depend entirely on the skill of an army of native *shikaris*, and whose personal share in that success is limited to pulling the trigger of the newest and deadliest thing in rifles when the game is found for him, knows nothing of the true delight of sport. As well might one say that the man has tasted all the pleasures of photography who contents himself with snapping the shutter of his camera, and employs a professional to develop the plate and print the picture. For my own part, I would rather bag one tiger or bison by my own efforts than a hundred which I owed to the exertions and the skill of my native *shikaris*. Mere killing is not sport: the real charm lies in the feeling that you have pitted your reason against the quarry's instinct, and won the equal fight; that your trophy is the reward of your own skill. This feeling is the very essence of true sport, and it makes success doubly sweet.

Obviously, the attainment of knowledge, however

slight, of the habits of wild animals, and of skill, however limited, in tracking them, presupposes a lengthy residence in a game country, and, of course, *non cuius homini contingit adire Corinthum*. But even the veriest globe-trotting gunner would derive infinitely more enjoyment from his shooting trip if he allowed his success to hinge more on his own hard work and less on an unlimited expenditure of cash in the making of elaborate preparations. His bag might be smaller, but every trophy would gain in value a thousandfold.

THE BEAR

Scientific name.—*Melursus ursinus*.

Tamil name.—*Karadi*.

Kanarese name.—*Karadi*.

Kurumba name.—*Karadi*.

Nayaka name.—*Karadi*.



Photo. by A. T. W. Penn, Ootacamund

THE BEAR

THE BEAR

"There is no truce with Adam-zad,
The Bear that walks like a man."—Kipling.

THE sloth bear, *Melursus ursinus*, which has a very wide distribution extending from Ceylon to the Himalayas, is the only one inhabiting South India. Till recently he was known as *Ursus labiatus*, but now he occupies a genus by himself, his isolation being due to the fact that he has only four incisors in the upper jaw, against six in *Ursus*. Colloquially, he is called the Indian or sloth bear. The former name, though vague, is appropriate enough in view of his occurrence all over the Peninsula; but if the naturalist who first bestowed on him the cognomen of "sloth" had ever had occasion to take to his heels with *Melursus* after him, he would I think have christened him differently! He usually travels at a jerky walk, but he also has at command a wobbly gallop which enables him to cover the ground much faster than a man can run. Owing to his peculiar structure and great muscular development, this gallop is an extraordinary, even mirth-provoking, performance. Seen end on from behind, he appears to be driven forward by hidden springs, going heels over head between each propulsion; but odd though the gait may be, it carries him along fast enough to make the name "sloth" quite inapplicable.

His fur is long, coarse, and jet black. The snout

is grey, this colour running in a narrow band round the under lip, and up the forehead to some distance above the eyes, which are also surrounded by a narrow circle of grey. On the chest, a little below the throat, is an open horseshoe of white or yellowish-white, the curve being downwards. The claws, about four inches long, very powerful and non-retractile, are also white. The length, including the tail, varies from five to six feet, the male being larger every way than the female. In this part of India I have not heard of a larger bear than one I shot, which measured six feet one inch from tip to tip.

The female has one or two cubs in a litter, which run with the mother till almost full-grown. They accompany her directly they are able to walk; and on her long rambles in search of food she frequently carries them on her back. The pairing season I take to be from April to June. I once came on a couple *in coitu* in the former month, the operation being accompanied by a succession of the most indescribable shrieks and howls—in fact it was the din that attracted me to the spot; and if bears always give vent to this love song, I have heard it as late as June.

Bears feed entirely on fruit and insects, the delicacy most esteemed being white ants or termites. The depth to which a bear will dig in search of these, especially when the ant hills are fresh and soft, is astonishing. I have sometimes seen such enormous holes that it seemed impossible they could have been the work of a bear, but the claw marks were proof positive. Another favourite food is the fruit of the *atti* (*Ficus glomerata*), and when this is ripe bears come out to feed much earlier than usual. They are fond too of the fruit of the *jak* (*Artocarpus integrifolia*).

Years ago, this and the *atti* were used as shade for the coffee, and every old estate has a number of these trees growing on it. This is the case with my own estate ; and in their eagerness to indulge in a feed of *jak* fruit, bears sometimes come, at night time, to my very door. Round Rockwood rise high rocky hills, with numerous caves, forming a domain after Bruin's own heart, so that, in this part of the country, he has no happier hunting ground. But though by nature insectivorous and frugivorous, there are well authenticated cases of bears feeding on flesh. Sanderson mentions one in which a bear devoured a muntjac shot by one of his men, and other instances are recorded in other books.

Of all wild animals, the bear is the easiest to bag when once seen, his eyesight and hearing both being dull. And when rambling in search of food, his occupation engrosses him so entirely that he pays no attention to anything else. But his wonderfully keen sense of smell compensates him in some degree for these deficiencies ; and in bear shooting, more than in any other, it is necessary to get well to leeward. I remember one evening I had climbed to the top of Rockwood Peak, and sat down to survey the country. After an interval I saw a black object far away across the valley, which my glasses showed me was a bear. The wind was right, and I waited a minute or two to determine the best way of getting round. Just then the wind changed, as it often does at this height in the evening. At once the bear sat up, and the next moment scampered off into the jungle. In a straight line the distance between could not have been less than half a mile, yet the change of wind had given him my scent.

Bears make curious noises. They suck their paws and "boom": when grubbing about for food they give vent to a cross between a grunt and a sniff: the act of copulation is performed to an accompaniment of shrieks and wails which might well emanate from a lost soul in agony: they are equally uproarious when they fight: and on receiving a bullet, the din a bear makes can only be called "infernal." When a bear in company with others is wounded, a fight is often the result. On this point Sanderson writes: "It has frequently been stated by sportsmen that if a bear be wounded he immediately attacks his companions, thinking that they have caused his injuries. But I think this is not quite correct, at least in the majority of cases. I have observed that a wounded bear's companions generally rush to him to ascertain the cause of his grief, joining the while in his cries, when he, not being in the best of humours, lays hold of them, and a fight ensues, really brought about by the affectionate, but ill-timed solicitude of his friends." This may be correct; but I once saw a boxing match between two bears, one of which I had fired at and missed. In this instance the fight could only have been due to the supposition on the part of the bear I fired at, that his companion was the cause of the outrage to his feelings.

Many writers on sport describe the sloth bear as a timid, harmless animal, and some even profess the utmost contempt for him. It may be that the individuals I have come across have all been unusually cross-grained specimens; but I certainly consider the bear the very reverse of timid or harmless. In my experience he is always a surly, morose devil, afflicted with chronic ill-temper, who never misses an opportunity of venting his spleen on anyone who crosses his

path. In fact, in my view, the bear is the most dangerous of all animals inhabiting this part of India, with the single exception of a rogue elephant. The tiger, metamorphosed by a popular fallacy into a fearsome beast, is only too glad to leave you alone in return for similar treatment, and so with the other *Felidæ*; but a bear will attack without any provocation. "Surly as a bear with a sore head," is a perfectly true saying, save that he does not need the incentive of a sore head to make him surly.

Bears inflict the most fearful wounds with their teeth—which are quite as powerful as a leopard's—and their formidable claws. I have seen a poor wretch, after one downward stroke of a bear's paw, who would have been a prize to a vivisectionist. Eyes, nose, mouth, were all gone, and the flesh on his chest was so torn that his vitals were exposed. Bears are popularly supposed to advance to the attack on their hind legs, and to hug their victims; but this, in the case of the sloth bear at least, is a fallacy. When charging, he rushes at you on all fours, like any other quadruped. I remember one old sporting writer advising the novice to "wait till the bear sits up, and then to plant a ball in the horse-shoe mark on the chest." It is probable that the bear might rise on his hind legs when at very close quarters, to give that deadly scrape with his claws; but though I have been several times charged by bears, my curiosity has never been fervid enough to let the beast get sufficiently close for a solution of the question. Certain it is that if the sportsman waited for a shot at the horse-shoe mark when a bear was charging, he would inevitably come to grief. It may be noted that, a bear being a clean feeder, the wounds he inflicts are much less

dangerous than those inflicted by one of the *Felidæ*, and they heal much more rapidly. I have seen natives who had recovered completely, save the disfigurement, from wounds received from a bear, which would certainly have proved mortal had they been given by a tiger or a leopard.

In my part of the country the sloth bear is indubitably the rarest of all game animals. By this I do not mean to imply that he is less common than, say, the tiger; on the contrary, along the rocky range of hills on which my estate is situated, bears are fairly numerous. But, save for the short season during which the fruit of the *atti* is ripe, the bear is nocturnal in his wanderings, and his day retreat is always chosen in some remote spot. Hence it is that he is so seldom seen.

From my estate to the village from which the district takes its name is about a mile and a half as the crow flies. But as the road of necessity follows the contour of the hills, winding round the shoulders, dipping into the valleys, and often doubling back on itself, the distance is spun out to four miles. This road is, for some occult reason, a favourite haunt of Bruin; and anyone desirous of making his acquaintance could gratify his ambition any night by taking a stroll from my bungalow to the village. I must have come across a bear half a dozen times on or near this road before I got a chance of adding his ugly head and shaggy coat to my collection of trophies. Some of these rencontres were not without excitement.

Late one miserable monsoon evening I was riding back to my *tote* on a nervous, excitable Waler. The rain was coming down in a steady sheet, a wind was blowing that chilled me to the marrow, and I was wet

through. Naturally both horse and rider were impatient for home. I was going at a hand-gallop, when the nag stopped dead with a snort of fear, nearly jerking me out of the saddle. Looking up, I saw a bear sitting in the middle of the road, twenty yards in front of me. The surprise was mutual, for at the same moment the bear sat up like a dog begging, and with his long snout in the air peered at me with his little blinking eyes in a way that, under happier circumstances, would have been laughable. I shouted and waved my arms, the loose sleeves of my waterproof flapping like great black wings; but the only effect of my antics on the bear was to make him step forward a pace or two, seemingly with the object of investigating me more closely. My horse, who had been snorting and shivering all through the performance, now whipped round, and the next instant I was flying back along the road. I glanced over my shoulder at the bear. He lolloped after us for a short distance, and then turned off into the jungle below the road. My frightened nag carried me a long way before I could pull him up, and it was only by dint of coaxing and petting that I eventually got him to pass the scene of our adventure.

On another occasion a friend and I went over one afternoon to S.'s bungalow near Nellakota for a game of tennis. It was pitch dark when we left for my *tote*, and the only lantern S. could give us was minus one of its glass sides. I stuffed my handkerchief into the gap, and for half a mile the lantern gave a light which at least served to make darkness visible. Then a gust of wind blew it out. We were now in a pretty predicament: four miles from home, the night so dark that you could not see your hand held before your face,

and not a match between us—truly a case of “matchless” misery. Taking the inside berth, I hooked one hand into G.’s arm, and with the other felt along the bank for the road. We had to grope carefully along, for the drop below the road was very deep in places, and a slip would have entailed serious consequences. We had got to within a mile of my bungalow without mishap, and I was congratulating myself that the worst part of the journey was over, when out of the black darkness ahead came a loud “wough, wough,” and before I could realise what had happened something rushed between us, and I found myself on my back in the middle of the road. Directly I could collect my scattered senses I called to G. A reply came from somewhere below me, and it took me some time to feel my way to G. down the steep bank, and help him to scramble up to the road again. Being on the outside, he had been knocked over the bank, and had rolled down a considerable distance. But save for the shaking and a few bruises he was unhurt. Next morning we examined the place. The broken lantern showed where we had been standing, and a few feet ahead a large hole was scooped out of the bank. The bear must have been so engrossed in his search after white ants, that he did not hear us until we were close on to him, and then he charged straight at us. It was certainly a stroke of good luck that the brute had not stopped to maul either of us.

Some months after this a keen but callow young friend came out to me for some shooting. He had several good chances at stags, but missed them all owing to a bad attack of buck fever. Just before he left he confided to me that his great ambition was to bag a bear. I told him his only chance at that time of

year was a shot by moonlight, and as he professed himself ready for a midnight excursion, we started one night about 11 o'clock. Overhead the full moon was shining as she only does in the tropics, bathing everything in a flood of ivory light which rendered each object as distinct as at noonday. Yet, as all Indian sportsmen know, nothing is more deceptive than moonlight, however bright. The difficulty in seeing the foresight of a rifle, and in judging distance with any accuracy, make night shooting almost entirely a matter of chance. So I cautioned my young friend to mind his p's and q's if we came across a bear.

We followed the road I have alluded to as far as the Emerald estate, about two miles, without seeing anything except a couple of sambur, and as I was getting sleepy, I suggested a return. Suddenly, as we came round a bend near my store on Rockwood, I saw a large black object on the road. I clutched my companion's arm, and drew him in to the bank. The black figure was moving about in the shadow of a tree which overhung the road; but shortly it came out into the moonlight, and stood revealed as a bear. My young friend, who was in a state of collapse, put up his rifle, and—as I believe, with both eyes shut—pulled the trigger. Then throwing down the weapon, he bolted as fast as his legs could carry him, while the bear with a grunt jumped into the coffee below the road.

These bears became insufferably intrusive. Not twenty feet from the porch of my bungalow is a large *jak* tree which always bears remarkably fine fruit. This huge fruit is a favourite food of bears; and early one morning I noticed the thick white latex peculiar to the *Artocarpus* running down the stem of this tree from

a number of freshly made scratches in the bark. On examining the tree more closely I found a large fruit half eaten, while certain signs made it clear that a bear was the thief. As the tree carried a number of ripe fruit, I thought it probable that the bear might return ; and I determined to sit up for him that night. Dinner over, I had my usual interview with my old Muhammedan writer about the next day's work ; and as he left for his house (which was on a hill above my bungalow) accompanied by a cooly, I sat down in the porch with my Express across my knees. The moon had risen some time, and the light was fairly bright. My writer had not been gone two minutes, when I heard a hullabaloo in the direction of his house. Catching up the rifle, I ran towards the noise, and on reaching the house I found the writer and cooly had stumbled on a bear, evidently the robber of the previous night coming back for another supper. Both men were so excited that it was some while before I could get an explanation. The cooly's arm was bleeding, and he said the bear had charged him ; but as the wound was not serious I concluded the beast had merely clawed the man down the arm when running across the road into the coffee. I bound the cooly's arm up and administered a glass of whisky, and then resumed my vigil ; but, though I watched till the small hours, no bear came.

However, my day of reckoning with these bears was at hand. One afternoon soon afterwards I was sitting in my verandah, when I saw a herd of sambur high up on the hill in front of the bungalow. I made them out to be four hinds and a brocket, so contented myself with watching them. Presently, some distance to the right, I saw two stags fighting, and as they seemed through

the glass to carry good heads, I started to make a closer inspection. It was a long and stiff climb to the top of the hill, the track in places leading through *dhubbay* grass which was over my head. The afternoon had been fine at starting, but before we (a Kurumba named Matha was with me) had negotiated half the climb, a drizzle set in with driving mist, which made pushing our way through the high grass very damp work. At last we reached a small plateau which jutted out between two patches of *shola*. Here the grass was higher than ever, and from the mist-covered stretch in front I several times heard a peculiar sound between a grunt and a snort. We stopped to listen, and Matha suggested "*punni*"; but though the sound was faint it was quite different from that made by a wild pig when grubbing for food. All round the mist curtain was so thick that I could not distinguish objects at fifty yards. I crept through the grass, carefully parting it with both hands, but some little noise in such thick stuff was inevitable. The grunting grew louder, and at length I emerged on a glade where the *dhubbay* grass gave place to a less rampant growth. Peeping across this, I had just time to realise that a black mass was making for me across the glade in double quick time. The only thing possible was a snap shot, and I fired right into the huge ball of black fur. The result was eminently gratifying, for the bear doubled up and rolled over almost at my feet, giving vent to the most astounding shrieks. Matha urged me to give him another bullet, but it was not needed. The shrieks subsided into bubbling groans as he writhed on the grass, his jaws snapped once or twice, and all was over. My bullet had entered at the junction of neck and shoulder, and had passed through his heart.

Such an unprovoked attack as this bear made is not usual, though in my experience Bruin is always a morose and uncertain customer. The only explanation I can offer is that he heard the rustling I made in the grass and charged straight at the sound. He certainly could not have known I was a man, for a strong wind was blowing directly from him to me, and his charge must have been begun before I appeared at the edge of the glade. He was a magnificent bear, by far the finest specimen I have ever seen, and measured six feet one inch from tip to tip. His coat was in perfect condition.

Shortly after this adventure, I started one evening for the hill I have mentioned on the chance of getting a stag. The figs were ripe, and all through the estate, almost from my door, there were unmistakable signs of bears, some made the night before. I passed through the coffee, and then turned off up a sambur track, which I followed for half a mile, till I reached the crest of a small hill. The valley below was a favourite place for sambur, and I sat down to watch. An hour passed without my seeing anything, when far away across the valley I noticed the branches of a large *atti* tree shaking. I could make out nothing through the glasses, and Matha, my gun cooly, said it was only the wind; but I pointed out that the other trees in the vicinity were still. The shaking went on at intervals, and we crossed the valley to get a closer look. Huge bunches of ripe figs were hanging from the trunk and branches of the tree in the way peculiar to *attis*, and when we got to within fifty yards I saw that the commotion had been caused by a bear who was so busily occupied in tucking into the fruit that our approach had been unobserved. Waiting till I could

get a clear shot, I put a bullet in behind her shoulder, which brought her down all of a heap. We ran up, but the bear had disappeared in the undergrowth, which all round here was very thick. Just then I heard two long-drawn wails, a sign, I felt sure, that the bear was giving up the ghost. The blood track was very distinct, and when we had carried it fifty yards we came on the bear, quite dead. She was a fine specimen, but not in such good condition as the other, who was probably her mate.

I have said that bears make curious noises. I remember one evening going up to the *jenkul* or honey rock—a large rock which stands some twenty feet out of the ground, half-way between my bungalow and Rockwood Peak, and a favourite lookout of mine, as it affords a view all over the surrounding valley—on the chance of a stalk. A narrow strip of jungle runs down the hill in front, which meets a small stream a couple of hundred yards below the rock, and at the point of junction grow two large *atti* trees. There is a natural seat at the summit of the rock, which screens the observer from view, and I had been sitting on this for about half an hour, watching three hinds feeding on the hill above, when I heard something rustling through the jungle in front. The cover was so thick, and the grass so high, that even from my elevated perch I could see nothing; but both Thundukol and I made sure it was a sambur, and I whispered the hope that it was the lord of the harem we had in view, and that he would give me a shot as he joined the ladies. All was still for another quarter of an hour, when suddenly began the most extraordinary concert at which I have ever been a listener. There were shrieks and growls and hisses and bubbling

groans, which made it evident that a party of bears were giving vent to their enjoyment as they gobbled the fallen figs. But still they were completely hidden, and it was fast getting dark. Owing to the wind, which was blowing down the hill, I did not dare to get closer—my only chance was that they would climb the *atti* trees when they had finished the fruit on the ground. For another half hour I waited, when at last I saw the head and shoulders of a bear in the fork of one of the trees, but the light was so bad that when I bent my head over the stock of the rifle I could scarcely see the sights. Taking the best aim I could at the black blotch in the tree, I fired. The bear rolled off the tree, and then began a hubbub compared with which the original concert was merely a joke. What was happening, I could not see; but from the tremendous hullabaloo it seemed as if all the bears in the district were indulging in a free fight. This went on for a few minutes, when something rushed through the jungle below me, and a moment afterwards I saw three bears making off up the opposite hill, but they were so far and the light was so dim that I did not risk a long shot.

Early the following morning I went after the wounded bear with a couple of men, and as my writer begged to be allowed to accompany me, I took him as well. Under the *atti* tree was a pool of blood, and we carried the track without difficulty through the jungle to the foot of Rockwood Peak. Here the ground is very broken and rugged, huge rocks being piled pell-mell on the top of each other, forming a series of miniature caves, ideal ground for bears; and it was evident the wounded one had taken refuge in one of these hiding places. As the blood track had ceased at the rocks, I

determined to explore the caves systematically, and I warned the men to keep near me. Recent traces of bears were in evidence everywhere, but the first three or four caves we drew blank. We then came to one much larger than the rest, formed by an enormous shelving rock, which sloped down for such a distance that the back of the cave was pitch dark. I had sent a cooly to the bungalow for a lantern, and just at this moment he arrived. Stones thrown into the cavern met with no response, but I decided to satisfy myself that it was empty, so telling the writer and coolies to wait at the mouth, I crept in with the light. Soon I had to go on all fours, and as the cave was several yards wide, it took me some minutes to investigate it thoroughly. It held nothing but a colony of bats, so I crawled back. On reaching the entrance, I found the writer and a cooly had disappeared, and from the other cooly I learnt that they had climbed further up the hill ; but the words were hardly out of his mouth when I heard a yell, and down came the two men slithering and rolling over the rocks. I seized the writer as he slid past me (the cooly was brought up short against a boulder) and put him right side up, but for a moment or two he could only gasp. Then he told me that on rounding a rock above, he had come right on the bear lying under a shelf, and had been charged at once. At the sudden apparition he had fallen backwards on the cooly, and both had rolled down together. I made him understand in the plainest language I could command what a fool he had been to disobey my orders, and as both he and the cooly were shaking with fright, I told them to wait while I went up with Thundukol. If this was the wounded bear, it was plain he still had plenty of life in him, so we made

our way up cautiously. Fifty yards higher, sure enough, was the bear's couch ; and as the dry leaves which covered it were all spotted with blood, he was my wounded friend beyond doubt. The exertion of charging had set the wound bleeding again, and we followed the track easily over the rocks for some distance higher up the hill, when it turned into a cave with a narrow entrance. A large stone rolled in elicited an angry growl, and the next instant out bounced the bear, startling me so with the infernal din he made that I missed him clean with the first bullet from my Paradox at five yards. Fortunately, in expectation of a charge, we were standing to one side of the entrance, and the bear kept straight on. I gave him my second barrel as he was turning round the angle of a rock, and over he rolled, yelling and shrieking ten times louder than before. I heard Thundukol, who was behind me, say, "another one is coming," and a second bear rushed past me and was out of sight before I could cram fresh cartridges into the gun. The first one had rolled down the rocks up which we had just climbed, and on reaching the bottom we found him dead within a couple of yards of where I had left the writer and the cooly. Both these men had disappeared into the large cave, and my writer's experiences on that—to him—memorable day have considerably cooled his ardour for sport, at least where dangerous game is concerned. The dead bear turned out to be the one I had wounded the previous evening, and on examining him I found that my first bullet had broken his shoulder high up. He was a good specimen, five feet ten inches in length, with a coat in splendid condition.

I have mentioned that I once saw two bears indulge

in a scrapping match when I had fired at and missed one of them—proof that a bear does not always require to be wounded to make him turn on a companion. As the adventure was rather curious, I record it. A few years ago, at the end of April when the *atti* fruit was ripe, I noticed that the trees growing near my bungalow all bore signs of bears having climbed them; and my cattlemen told me that three bears had taken up their quarters in some large rocks a short distance up the hill. I was too busy at the time to look them up; but one afternoon, having time to spare, I sallied out with the express intention of trying to make their acquaintance. I was opening a tea clearing a little way below the pile of rocks; and as I passed the lines, I called my Maistry with the view of going over the work with him on my way up the hill. I was talking to him about the pitting, when I saw three bears leave the rocks above us, and cross the face of the hill on the other side of the valley. Over the shoulder of this hill was a hollow in which I knew were several large *atti* trees covered with ripe fruit; and I guessed that this was the destination for which the bears were bound. The wind, which was blowing strongly from the west, made a detour necessary; and I went down to an old estate road that led past and just under the clump of *attis*, after winding round the hill for a long distance. From where the Maistry was standing a view over the whole country could be obtained; and I told him to stay there and signal to me when I had got some way along the road. If the bears passed the hollow in which the *attis* grew, and went further up the hill, he was to hold both arms above his head: if, when they entered the hollow, they did not reappear on the other

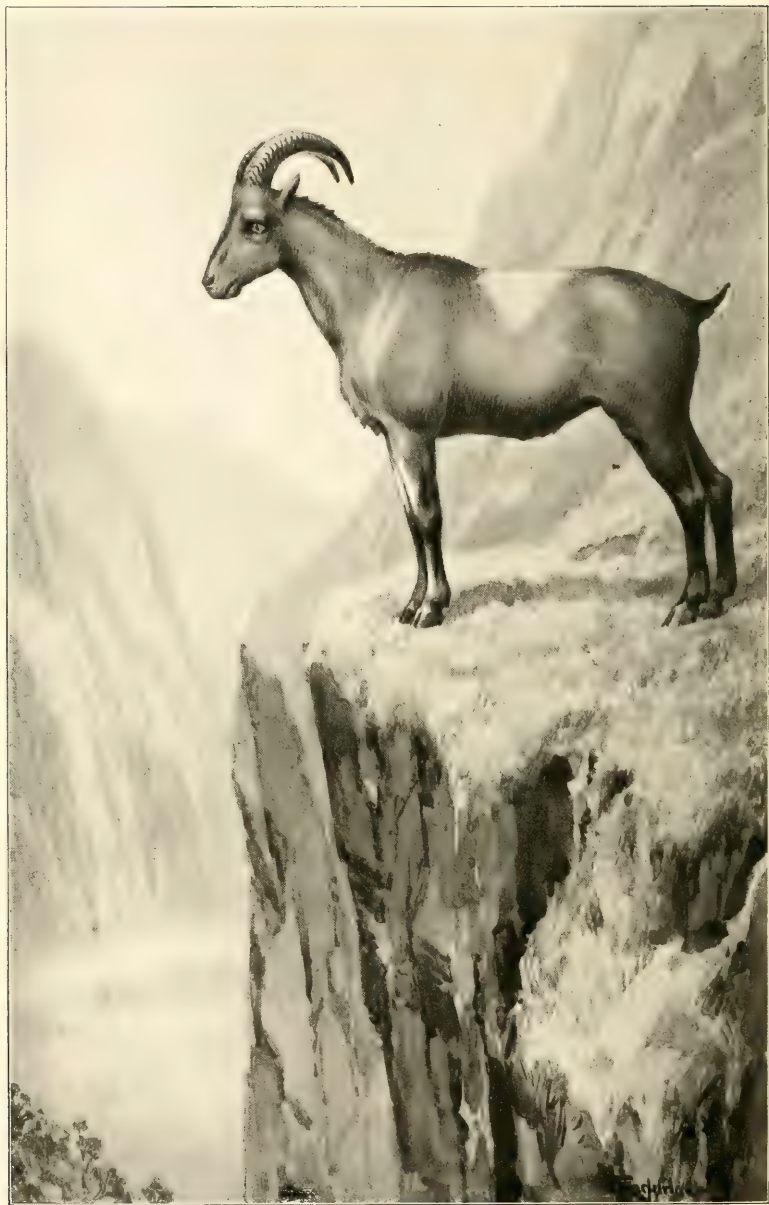
side by the time I reached the point on the road I showed him, he was to hold both arms out at right angles. I made my way along the road to the furthest point from which I could see the Maistry, and on looking through my glass I saw he was signalling that the bears were in the hollow. This made me sure that they were engaged in a feast on the ripe *atti* fruit ; but my precautions were not required, for when I got within a hundred yards of the clump of *attis*, there came from under them the grunts and growls bears always make when they find a dainty that tickles their palates. I crept up for another fifty yards ; but the tall *atti* trees were smothered in a dense growth of thorny scrub, about ten feet high, in which I could see nothing, and a closer approach might have frightened the bears without giving me a chance. My only hope was that the bears might climb the trees, as large bunches of fruit hung temptingly from the higher branches, and I sat down on the road to watch. I had not long to wait, for in ten minutes I saw a large bear swarming up one of the trees. In a minute he had climbed high enough above the scrub jungle to afford me a clear shot, and I brought him down all of a heap with a bullet from my '450. The moment he fell, with a thud audible to me where I sat, out rushed the other two bears to my left, making straight up the face of a steep hill as fast as they could go. Here the ground was free from jungle, but covered with *dhubbay* grass about six feet high, and I only caught momentary glimpses of the bears as they ran between the clumps. During one of these I got a snap shot at the leader, but I saw the bullet knock up the dust just in front of him. He turned sharp round with the object of getting back to the cover he had just quitted, a manœuvre

which brought him into collision with the second bear, who was following close behind, and a fight ensued at once. As they fought, the bears came down the hill ; and catching sight of me on the road below, they came straight at me. The smaller one thought better of it, and turned into the cover just before reaching the road : the other made a desperate charge, and I killed him with my Paradox at five yards, distance. He was not a large specimen, measuring only five feet two inches from tip to tip ; the first bear I fired at, which we found lying dead under the *atti* tree, was a much finer animal, its length being five feet seven inches. On cutting up the latter, I found that the '450 bullet had entered on the right side in the middle of the body and passing through obliquely, had shattered the heart. It was seated just under the skin on the left side, a perfect mushroom in shape. This was a Jeffery's No. 6 bullet.

THE IBEX, OR NILGIRI WILD GOAT

Scientific name—*Hemitragus hylocrius*.

Tamil name.—*Burrayadu*.



THE NILGIRI IBEX

Drawn by J. Macfarlane

THE NILGIRI WILD GOAT

I chace the Wild Goats o'er Summits of Rocks.—*Dryden*.

By many writers this animal has been classed under *Capra*. Gray has called him *C. warryato*,¹ and Sclater *C. hylocrius*. But though he is a true goat, he is differentiated so sharply from members of the genus *Capra* by the absence of a beard, by the different shape of skull and horns, and by the presence of a small muffle, that modern writers have placed him in a separate genus—*Hemitragus*, a genus which he shares with one other Indian species, the tahr, or Himalayan Wild Goat (*H. jemlaicus*). Locally he is known as the Nilgiri ibex, but for the reasons given above, the name is somewhat of a misnomer. The most appropriate designation for this animal would perhaps be the Nilgiri tahr, but the name ibex is hallowed by custom, and ibex he will remain to the end of the chapter. The chief differences between the Himalayan tahr and the Nilgiri ibex may be thus summarised:—

H. jemlaicus. Hair on neck, shoulders, and chest, long, forming in old males a shaggy flowing mane extending to below the knees. Horns flat on both sides. Mammæ four.

H. hylocrius. Hair on neck and shoulders much shorter, forming in old males merely a stiff mane on

¹ Obviously from *burray*=cliff, and *adu*=goat.

the ridge of the neck. Outer surface of horns strongly convex. Mammæ two.

In colour the mature buck of the Nilgiri ibex is a dark brown, with a tinge of yellow; and at this stage he is known as a "brown buck." The under parts are paler, and there is a distinct band of darker brown down the whole length of the back. As the male gets older the colour deepens to black on face, limbs, and body, a yellowish ring appears round the eyes, while the hair on the lumbar region and the back of the legs assumes a lighter tint. In very old males the grizzled area on the loins becomes almost white, and the buck then forms that chiefest object of every Nilgiri sportsman's ambition—a "saddle back." Females and young are always much lighter in colour than the mature bucks. Males have the usual disagreeable caprine odour. There is no seasonal variation in the coat.

At their base, the horns are set very close together, for a short distance they are sub-parallel, then they curve slowly backwards, outwards, and downwards. Throughout their length they are transversely striated, the inner surface is flat, the outer surface convex, while along the front upper edge is a sharp and strongly marked "keel." The under edge is rounded. In the females the horns are more or less similar in shape, but thinner and shorter. The record pair measure seventeen and a half inches along the upper curve, and nine and seven-eighths inches round the base. Another fine pair mentioned by Blanford are seventeen inches and nine and three-quarter inches respectively. The largest pair on record for a female are twelve and three-eighths inches in length and five and a half inches round the base. My own best pair,

shot many years ago, measure fifteen and three-quarter inches in length, and a fraction under nine inches in circumference at the base. This was a saddle back, and his height at shoulder was forty inches; but much bigger specimens have been bagged. According to Hawkeye (Gen. R. Hamilton) the maximum height is forty-two inches.

The Nilgiri wild goat is found on the Nilgiri and Anamallai Hills, and on the higher spurs of the Western Ghats as they traverse Travancore and Cochin. It does not descend below four thousand feet, save in a few localities where the lower slopes are rugged and broken. North of the Nilgiris, the grand western mountain chain affords in many places (*e.g.* the higher peaks of the Vellarimallais) an ideal habitat for this cliff-loving goat; but I have never been able to obtain evidence of its occurrence in such localities. In view of this long stretch of suitable country trending northwards, the present isolated habitat of the Nilgiri ibex is curious, more especially as the relationship to its Himalayan congener is sufficiently close to warrant the assumption that at one period a single species inhabited the whole of Western and North-Western India; the two existing species being merely local races whose distinctions are due to their present environment.

In describing the habits of the Himalayan tahr Blanford writes: "Col. Kinloch's account is excellent. He says, 'The tahr is, like the markhor, a forest-loving animal, and although it sometimes resorts to the rocky summits of the hills, it generally prefers the steep slopes which are more or less clothed with trees Old males hide a great deal in the thickest jungle.'" Here a wide divergence occurs between the habits of

the two species, for the Nilgiri ibex is the very reverse of a "forest-loving animal." It frequents the beetling crags and towering precipices of the Kundahs, far above the forest line, coming up to the grass slopes which border the cliffs to feed. These grass slopes usually hold *sholas* in the folds between the hills, but save when wounded, I have never known an ibex take refuge in them. About April ibex frequently leave the cliff-line, and roam a considerable distance inland, attracted by the fresh sweet grass which springs up after the annual fires ; but if disturbed, they retreat at once to the inaccessible cliffs.

In former days—the halcyon days of sport on the Nilgiris—ibex were found in very large herds, an assembly of even one hundred being not uncommon according to the accounts of old-time sportsmen. But owing to incessant persecution the numbers were thinned at such a rapid rate that at one time the ibex stood in imminent danger of extermination. The introduction of the Nilgiri Game Act in 1879, which prescribed a close time for all game, did much to avert this calamity : the absolute prohibition of ibex shooting, which followed a few years later, did more. Under this salutary legislation there was such a steady increase in the herds, that in 1908 it was found possible to permit the shooting of one saddleback under each licence issued in a season, and this rule still obtains, though, I need hardly add, a saddleback does not fall to the lot of every sportsman who goes on a shooting trip to the Kundahs. The largest herd I ever saw was at Bettmund on a glorious January morning in 1890, and numbered twenty-nine individuals. Curiously enough, this large herd did not contain a single warrantable buck ; and, ensconced

behind a rock, I contented myself with watching them for a couple of hours, while they fed up to within a hundred yards of my post.

Ibex begin to feed at sunrise and continue feeding till about nine or ten o'clock. If the country is quiet, they then lie down in some warm nook, sheltered from the wind, near the cliff-line, rising to feed again in the early afternoon. But if they have recently been disturbed, they descend some distance down the cliffs before couching. As said before, I have never known them seek the shelter of a *shola* for their midday siesta, or at any time save when wounded: in fact they may rightly be described as open-loving animals. A sentinel is invariably posted to watch over the slumbers of the herd, usually a doe, and an extremely wary sentinel she is. Perching herself on some dizzy eminence, for an hour or more she makes the most minute survey of the surrounding country; then, if satisfied that no danger threatens, she lies down, being careful to place herself in such a position that she can still maintain a vigilant watch. Frequently, for a part of the year at least, an old buck leads a solitary life; and while a bachelor, he goes through all the above precautions every morning himself. But, in common with most wild animals, ibex are never very suspicious of danger from above; and it is their want of caution in this respect that sometimes gives the sportsman his opportunity, for if he can get above them, a stalk is an easy matter provided the wind is right. I say "sometimes" advisedly, for as ibex usually select the highest ground for their midday couch, it is not often that a chance of an approach from above occurs; while so wary and keen sighted are they, that a stalk from below, no matter how carefully conducted, is almost

always hopeless. It is this extreme caution on the part of the quarry, coupled with the grand country they frequent, that makes ibex stalking the cream, the poetry, of Nilgiri sport.

As young kids run with the herds all the year round, ibex do not appear to have a regular breeding season; but so far as my observation goes, more kids are dropped in the spring months than at any other period of the year. Some writers have stated that the doe always has two kids; but though I have seen two kids of apparently the same age with one mother, more frequently I have seen only one; and I do not think it is the rule that two are produced at a birth.

Every phase of South Indian sport has its own peculiar charm; but from one standpoint—that of mountain scenery—ibex stalking o’ertops them all. When following the Nilgiri wild goat over the beetling crags on which he loves to dwell, you meet Dame Nature in her grandest aspects; and there is ever present too that spice of danger without which any sport loses its attraction. In the words of Lindsay Gordon (slightly altered),

“No sport was ever yet worth a rap,
For a rational man to pursue,
In which no accident, no mishap,
Had need to be kept in view.”

One needs a cool head and a sure foot amongst the tremendous cliffs which form the western face of the Nilgiri plateau.

In December, 188— I was out in camp with J. near T—mund, on the Kundahs. We sent on our baggage and tent from “Ooty,” and shot our way out to camp, getting a fair bag of small game, including two woodcock, on the road. The next morning J. started with

his *shikari* to work up the long valley in front of the *mund*, while I paid a visit to the B— cliffs, perhaps the best ibex ground on the Kundahs, with my gun cooly. I reached my destination just as day was breaking, and the view that was unfolded as the sun rose over the rocky ridge behind me I can only call sublime. In front of, and round me, in a semi-circular sweep, the cliffs dropped down to the low country in a sheer unbroken wall. A carpet of green turf ran along the edge, while in every valley and ravine nestled a *shola* of beautiful indigenous trees, running through every shade of colour from dark green to brilliant red. The rhododendrons were in full flower, and the masses of carmine blossom turned each hill-side into a garden. Far away below me the plains stretched out to the sky line in an emerald carpet, through which the hill streams wound in bands of silver, sparkling and flashing in the rays of the morning sun. At the foot of the cliffs lay the dense forest which clothes the foothills along the whole western face of the Nilgiris—the home of elephant and bison. To my left, miles away, the needle-like cone of Mukarti shot up into the blue sky, and further still the bold ridge of Nilgiri Peak ran out into the plain, its summit broken into fantastic pillars and cupolas of granite. I know of no sensation to be compared with the feeling of awe that comes over one in the presence of such mighty works of Nature as these. The towering heights: the awful depths: the vast gloomy forest bring home to a man his own insignificance with overwhelming force. And over all broods that tremendous silence; broken only by a stream rippling over the cliffs in a veil of silver, or the swish of a bird's wing as it darts down the sheer drop with a velocity that makes one shudder.

I very much doubt whether any mountain range in India, save of course the Himalayas, possesses such marvellous scenery as this part of the Nilgiris.

I took up my post at the edge of a dizzy cliff, close to a waterfall which fell perhaps two hundred feet into a large pool. I had not been watching long when I saw a sambar stag ascending the opposite hill. Through the glasses I made out that he carried a decent head. After traversing a small *shola*, he lay down under a clump of rhododendrons on the summit of the hill; but ibex were what I wanted, so I left the stag alone. An hour passed, but nothing else appeared, and I was on the point of starting after the stag, when my gun coolly spied an ibex below. I stretched myself at full length, and peeped over the edge of the cliff. There, sure enough, far down, were three ibex, and shortly they were joined by three more. I made out that two at least were bucks, but they were so far below that I could not with any certainty judge the size of their horns. For another hour we watched them as they sauntered along, nibbling at the bushes which here and there grew out of the rock, until they reached the fall. Just here the cliff curved inwards, the water falling clear of the rock. A narrow ledge ran round the face of the cliff, and on this, under the waterfall, the herd lay down. I could now see them clearly through my glass. Two were good brown bucks, one carrying a fine head: the others were does and kids. In the hope that later on they would ascend the cliff to browse on the grass, I lay still; but though I watched for a couple of hours they did not move, and it was evident they had couched for the day. If I was to get a shot, the only way was to go down after them, but the prospect was

scarcely pleasant. Above the ledge on which the ibex were lying, the cliff was a sheer wall of rock, down which it was impossible to climb. But some distance to my right a narrow ravine ran down the cliff, and the soil in this cleft supported a scanty growth of scrub jungle. From the peculiar formation of the ground I could not see where this ravine led, or how far it descended, but as it afforded the only chance of reaching the ibex, I determined to follow it down. For some four hundred yards the descent was easy, as the trees gave us support; but then the ravine stopped and the jungle with it. I now found myself on the ledge along which the ibex had passed in the morning. Below was a precipice of unknown depth. Looking ahead, I could see the waterfall, but the ibex were hidden behind a curve in the cliff wall. The only way round this was by the ledge, and the mere thought of the journey made my flesh creep. The cooly was too frightened to come further, and I told him to wait in the ravine for my return. I sat down to recover my breath, and to wait till the feeling of awe had passed off a little: then I started along the ledge. Curiously enough, once out on the cliff my nerve returned, and borne up by the excitement, I lost all sense of danger or risk. Inch by inch I crept on, and soon I had rounded the curving face of the cliff. The ledge here was broader, and peeping round I saw the ibex about sixty yards away under the fall. The big buck was nearest to me and on his legs; the others were lying down. All unconscious of danger, the buck half turned to reach a clump of *Strobilanthes* over his head. Taking careful aim at his neck I pressed the trigger: he dropped at once, and lay kicking with his legs in the air. I made sure he was

mine, but alas ! one convulsive kick took him over the ledge, and I saw him drop through space until he fell into a pool far below, sending the water up in a cascade. At sound of my shot the other ibex rushed back towards me along the ledge. Seeing me they swerved, and ran along the cliff below, over ground that I would not have believed could afford foothold for a fly. The second buck was amongst the last to cross, and as he passed I fired. The bullet caught him in the flank and he staggered. Here the rock was smooth and slippery : he began to slide : made a desperate effort to recover himself : and went headlong over the precipice. Where he fell I could not see, but as I heard no sound, he must have gone right to the bottom. My disappointment, and the names I called myself for having followed ibex over such ground, I leave to be imagined. There was nothing left but to go back, and that return journey was the most "squeery" experience I have ever had. With the ibex in front of me, I had lost all sense of danger, but now that the excitement was over, the thought of the road I had to traverse made me shudder. As I crept back each step made me sick, and once or twice the feeling came over me that I could not face that perilous ledge ; but I kept my eyes steadily in front, and at last surmounted the dangerous bit. How long it took me, I cannot say, and the sense of relief that came over me when I joined the gun coolly can be better imagined than expressed. I have a strong head, and ordinarily dangerous ground does not flurry me, but I freely confess that nothing, not even the "biggest saddleback wotever was seen," would tempt me to repeat my journey down that cliff.

Next morning J. and I returned to the cliffs, to see

if there was any chance of recovering my lost ibex. At the point where we struck them, a little north of the scene of my adventure on the previous day, the ground slopes up in a long incline, so that the cliffs are hidden till you reach the edge. J. had not visited the Kundahs before, and as I was keen to see how the awful grandeur of this face of the plateau would strike him, I did not give him warning of what was in store. We reached the last valley, crossed the stream, and climbed the last ascent, J. unconscious of what a marvellous vision lay beyond the summit. Suddenly, as suddenly as if it had been a fresh slide in a magic lantern, the scene changed. The grassy upland lay behind, and we stood on the brink of the precipice, with the whole panorama of rugged spires, yawning chasms, giddy heights and bare walls of rock streaked with silver ribbons spread out before us. "Well?" I asked. J. took one look round, and simply said, "My God"; and were I to write pages I could not describe with half the force of those two words the feeling of mingled pleasure and awe that seizes and holds one in presence of such wondrous works of Nature as these. Mark Twain, speaking of the Alps, says, "There was something subduing in the influence of that silent and awful presence (the Jungfrau); one seemed to meet the immutable, the indestructible, the eternal, face to face, and to feel the trivial and fleeting nature of his own existence more sharply by the contrast. While I was feeling these things I was groping, without knowing it, toward an understanding of what the spell is which people find in the Alps and in no other mountains" (M. T. is wrong there) "that strange, deep, nameless influence which once felt cannot be forgotten—once felt always leaves behind it a restless longing to feel it

again—a longing which is like home-sickness, a grieving haunting yearning, which will plead, implore, and persecute, till it has its will.” This is a long digression ; but Mark Twain’s words apply as forcibly to the Kundahs as to the Alps, and those who have been under the spell of mountain scenery themselves will forgive me for lingering on these reminiscences.

We reached the waterfall and peered over. Far below, a mere speck, we could see my first buck lying in the stream, but alas ! to reach him was an impossibility, and his trophy was lost to me for ever. How I wished then that I had left him in peace on the chance of finding him on better ground at some future time. After a last peep, we separated, J. and his *shikari* turning to the right, and I going in the opposite direction. I sauntered on for a mile, but though marks of ibex were plentiful, I saw nothing, and about midday I sat down under a tree on the open hillside for an *al fresco* meal. Here the strong wind disturbed my cooly’s equanimity, and he went over the knoll in front to get out of it. While I was considering what line to take on my road home, the cooly came running back to say three ibex were lying down on the further side of the hill. I climbed up, and through the glasses made them out to be a buck and two does. The ground was dotted with stunted trees, and I got to within sixty yards without difficulty. The buck was lying broadside on, lazily munching a mouthful of grass, and I fired for his shoulder. I heard the bullet tell loudly, but he jumped to his feet, and, with the does, rushed straight down the hill, which was as steep as the side of a house. I had a flying shot at him with my second barrel, but missed. All three ibex plunged into a strip of *shola* that fringed the stream at the foot of the hill, but to my satisfaction

only the does reappeared on the other side. We followed as fast as we could, though caution was necessary in going down the slippery hillside, and lying on his back in the stream we found the buck, stone dead. My cooly, an Ooty "beater" with a smattering of English, was first up, and he called out "saddleback sar," but on coming up, which I did with such undue haste that I contrived to fall down a bank and hurt my hip severely, I found him to be a good sized brown buck, with thirteen inch horns. The bullet had blown his lungs to a jelly, but so great was the impetus he got from the steep ground, that he had travelled full two hundred yards before falling. This was luck with a vengeance. Many a time I have fagged for days without even a sight of an ibex, but during this trip the fates were propitious, for here on two successive days I had come across a herd, and we saw another before we left the neighbourhood.

On the way back to camp, I was witness of the most striking effect of light and shade I have ever seen. The morning had been fine, but towards the afternoon the sky became overcast, and a dense bank of clouds gathered in the West, which rapidly spread upwards. In a short space they had covered the whole dome of the sky with an ink-black mantle, and by the time I had secured the head and skin of the ibex it was so dark and threatening that I decided to make for camp direct. Just as I reached the path along the cliffs, the sable pall split down the centre in front of the sun, and through the rift came a great beam of golden light which bathed everything in its path in glory while all else remained in deepest shadow. "Heaven peeped through the blanket of the dark." The effect in such sublime surroundings was magical, but I did

not stay long to contemplate it, for it was evident a big storm was brewing. And sure enough, before I had covered half the distance to camp, down came the rain in sheets.

The next day was a blank, and that evening we decided to shift camp to Mukarti the following morning. It was a longish tramp, but this is one of the lions of the Nilgiris, and J. had not seen it. If the visitor to the Blue Mountains climbs the hill behind the old church, or better still if he strolls along the Kotagiri road to the point where it overlooks the Botanic Gardens, he will see, far away over the waving sea of blue gums that girdles Ooty and over the outlying spurs of the Kundahs, outlined clearly as a silhouette against the setting sun, a needle-like peak with a double apex, which by its peculiar formation stands out prominently about mid-way along the serrated line of peaks that bounds the horizon. This is famed Mukarti.¹ Long ago some kind but—from my point of view—misguided philanthropist cut a bridle-path to the summit of the peak. The distance is only some seventeen miles, so many visitors “do” Mukarti now, and they are amply repaid for their trouble, for the view from the summit is amongst the best that can be obtained anywhere on a range renowned for glorious views. But the constant intrusion of sight-seers is not an unmixed blessing to

¹ “Mukarti Mallai” signifies in Kanarese “the Peak of the severed nose.” According to Metz (a well known authority on the hill tribes) the local legend is that Ravana, incensed at the greater reverence paid to his enemy Rama by the hillmen, cursed them with a plague of vermin (a lasting curse, by the way!). Rama in revenge cut off the nose of Ravana’s sister, and set it up—transmogrified into Mukarti Peak—as a proof of his superior power.

The Todas believe that from Mukarti’s dizzy height the souls of dead men and buffaloes take their last plunge into Amnordr, the World of the Shades below this World.

the sportsman, for Mukarti and its neighbourhood is a favourite haunt of the ibex.

We pitched camp on the stream at the foot of the peak, and early the next morning were on the cliffs. These we followed in a gentle curve until we reached a place where, near a stream which went thundering over the cliff, there had recently been an extensive landslip. We had not been scanning the broken country below very long, when far beneath us the *shikari* spotted a herd of five ibex, two of which through the glasses seemed to be bucks. We could not by any possibility get down to them, so had no choice but to possess our souls in patience on the chance of the herd coming up to feed on the grass above. They sauntered up the cliff, and at last lay down some five hundred yards below us. The *shikari* Selvia said that from where they were lying two tracks led up to the summit of the cliff, one of which had been swept away by the landslip. He therefore thought our best plan was to wait where we were, as the other, and—as he supposed—the only practicable path debouched close by. Between us and the landslip lay a narrow *shola* which extended to the verge of the cliff-line, scattered shrubs running some way down. We made ourselves comfortable under a bush, taking occasional peeps over the edge of the precipice at the ibex, which still maintained their position. Time passed, and as we had a long tramp before us to camp, I was beginning to think we should have to leave the ibex for another day, when suddenly, and as if moved by one impulse, all five sprang to their feet and ran a short way up the cliff. There they stopped, wheeled round, and gazed intently at something below. This manœuvre was repeated several times, until they reached the landslip.

Under this they huddled for a minute, and then—with the peculiar whistle which is the alarm note of the ibex—began to climb rapidly up the broken ground. It was now evident they did not mean to take the track which led past us. Their dark hides showed up clearly against the red earth of the landslip, and the distance could not have been more than two hundred and fifty yards. “Is it good enough?” whispered J., but I shook my head, for I felt sure we should be able to work round the head of the *shola* in ample time to meet them when they reached the summit of the cliff. With this intention we jumped up and were on the point of starting, when the *shikari* seized my coat, and pointing down said, “*pillee, pillee.*” The erratic movements of the ibex were now explained, for sure enough, far below us, was a tiger creeping up the face of the cliff, on the line the ibex had taken. These of course were forgotten at once, and we held a hurried consultation. Selvia urged us to stay where we were, as the tiger would perhaps take the easier path up the precipice. But a glance at his face showed me that this counsel was dictated by “funk,” and as it seemed most probable that the tiger would follow the track the ibex had taken, I advised a general move for the landslip. J. agreed; but the *shikari* begged earnestly that one gun should remain to guard the other path. “All right,” said J., “I’ll stay here and you run round.” So far all the luck had been with me during the trip, and I would gladly have given J. the chance; but there was no time to argue, so I hurriedly made my way along the edge of the cover. On reaching the landslip I looked over, and saw the ibex huddled on a grass slope about a hundred yards away. It was a strong temptation, but remembering the nobler game

in view, I refrained. From my position the *shola* hid the face of the cliff where I had last seen the tiger; but J. signalled he was coming up in my direction. With my heart going like a steam pump, I crouched at the edge, expecting every moment to see the tiger's round face appear. But I was doomed to bitter disappointment, for suddenly J. raised his rifle, and two rapid shots followed. I jumped up, and far away down the cliff I saw the tiger going at breakneck speed. How he went over such ground at that pace was a marvel. In desperation I sent a couple of bullets after him, but I have no doubt both were misses. I looked round for the ibex, but scared by the firing they too had vanished. Then slowly and sadly I rejoined J. He told me the tiger had crept steadily up until below the landslip, when the wretched tiffin cooly was so overcome with fright that he had run along to a big tree at the edge of the *shola*, up which he began to climb. The movement above at once attracted the tiger's attention: he stopped, gave one look at the cooly, then turned and ran back down the cliff. Seeing my chance of a shot had gone, J. had fired at a range of some three hundred yards. His first shot, he said, was a palpable miss, but the tiger had seemed to respond to the second. However, it was impossible to follow, so we were obliged to leave without even the satisfaction of knowing that the tiger had carried away a souvenir of his visit to Mukarti. What we said to the cooly was, I fear, unfit for publication. We did not reach camp till 9 P.M. and as it was a dark night, and the ground was very much cut up by deep buffalo tracks, our tramp was the reverse of agreeable. Altogether the day, with its chapter of accidents, had been too much for us, and when we got back neither

of us was in a very enviable frame of mind. But our factotum had not been idle, and over the wonderful repast we found ready, we recovered our tempers. Truly the Indian "boy" is a marvel.

"There is a realm of magic sable,
Sable monarch he of it;
One wave of his kitchen ladle,
And *ex nihilo* dinner fit!"

In April 188— I was staying with H., who owned an estate on the Kundahs in the neighbourhood of some of the finest ibex ground on the whole range. A few miles from his *tote* the plateau ended in a wall of cliffs that overhung the low country in a sheer drop of perhaps three thousand feet, and these cliffs were, when the fresh grass had sprung up after the spring showers, a sure find for ibex.

We were sitting in the verandah of his bungalow, indulging as usual in yarns of *shikar*, when I remembered that the next day would be my birthday. "What would you like best?" asked H. "A sixteen-incher above everything in the world," I replied, for this had long been the summit of my ambition. "Well," said H., "it's rather early for ibex about here, but we'll try the cliffs"; and at 5 A.M. the following morning we were well on our way thither.

We struck the cliffs at what H. called the Waterfall just as day was breaking, and sat down to enjoy the view. To our right the cliffs swept round in a wide curve broken into the most fantastic shapes. Pinnacles of bare grey rock shot up from the dense *shola* which here extended to the verge of the cliff-line, the view on that side being closed by a bluff capped with a helmet of rock, which towered like a giant above the rest. Far beneath us the plains spread out to the horizon in a sheet

of green, through which a stream wound in a silver thread. On our left the wall of cliffs was not so rugged, and grass took the place of jungle along the edge. A couple of hundred yards lower down on this side was the Waterfall, a stream which bounded over the cliff in a veil of gossamer, sparkling in the morning sun like burnished steel.

We had carefully swept every nook and cranny with our glasses, but had not seen a living thing of any kind. H. had just remarked that apparently we were in for a blank day, when I chanced to look below the fall. A narrow belt of jungle crept up to the basin into which this discharged, clinging to the bare rock in a way that set one wondering where and how the roots of the rhododendrons of which it was mainly composed found support. I was taking stock of this, when out stepped an ibex on the side furthest from us, followed by her kid. Straggling after her came the rest of the herd, until we counted nine. Two were fair bucks, the others does and kids. The wind was blowing straight down the cliff, and there was nothing for it but to remain where we were until the herd fed up to the level ground above. For a full hour we watched them as they gradually ascended, nibbling at the bushes amongst the rocks, till they reached the fall. Here a ledge ran round the cliff, and one by one we lost them as they turned the angle. Then we held a council of war. The track which gave access to the summit of the cliff ran up a cleft in the rock, and was hidden from our view. I thought we might with safety creep a hundred yards further down, to be within range directly the ibex appeared, but H. considered it would be more prudent not to move till we saw exactly what they meant to do, and I gave in to his judgment.

Half an hour passed without a sign of the ibex, and we were all getting impatient—Bill, H.'s *shikari*, was with us—when at last the leader, the same old doe I had first seen, appeared on the grassy plateau above the cliff. In another five minutes the other members of the herd had joined her, and my heart bounded when I saw that they had brought a grand saddle back with them. Ye gods! how I gloated on his curving head and grey saddle. The herd were quite unsuspicious of danger, and began to feed at once. Very soon they reached the stream, and we watched anxiously to see if they would cross. If they did, we had but to wait till they fed within range; if not, to get a shot would be a more difficult matter. Another half hour passed, and still the ibex persistently kept on the further side of the stream. The wind meanwhile had shifted, and was blowing directly from the ibex to us. H. and I agreed that the Mountain did not mean to come to Muhammed; but how was Muhammed to get to the Mountain—the saddle back—who had kept religiously in the rear the whole time? We were then hidden behind some boulders on the summit of a knoll. Round the foot of this ran a brook, parallel with the cliffs, which fell into the main stream just above where the ibex were feeding; and we settled that I should creep down the line of bushes which fringed this brook—H., with his usual good nature, resigning the shot to me. "It's your birthday, my boy," he said, "and there's the sixteen incher. Go ahead, and luck go with you."

Gradually I crawled backwards, until the ibex were out of sight, and then made tracks for the brook. Silently I crept along, until I reached the larger stream, on the further side of which the ibex should

be. I half raised myself and peeped over the bushes in front. Within twenty yards of me was the old doe, with her kid frisking round her, the rest being some thirty yards further back and to the left ; but where—great heavens where—was the saddle back ? I subsided and looked back to H. I could just see the top of his brown hat over a rock, and in dumb show I asked him what had become of the big one. A wave of his hand towards the cliff told me the saddleback had fed lower down than the rest. Here was a dilemma with a vengeance. I had been over the ground before, and knew that a hundred yards in front, just at the edge of the cliff, was a depression due to an old landslip, and in this the big buck must have ensconced himself. But I dared not advance another step. As it was, the doe and kid were so close that my heart was in my mouth. A slight slant of wind, an incautious rustle, and good-bye to any chance of a shot at the saddleback. Either of the other bucks I could have secured from where I knelt. They had decent heads, and in other circumstances I would have considered one of them an ample reward for the stalk ; but the grand old fellow I had seen made them appear insignificant, and better a blank day than any head but his. In this position, *vis-à-vis* with the doe, I remained till I had almost lost patience, and thought of creeping back to H. ; but on taking another peep, I saw the doe sauntering in the direction of the others, who in turn were feeding up the side of the hill in front.

Breathing a fervent prayer that they would go over the crest, I resumed my vigil. The Fates for once were propitious, and shortly I saw the last ibex disappear over the summit. The next instant I had

crossed the stream, and was stealing along the hillside. The depression I have mentioned was of considerable depth; and, on hands and knees, with the utmost caution I approached the edge. Imagine my delight when, peering over, I saw the saddleback lying in the sun, with his head turned from me, not fifty yards away. My heart was going like a steam pump as I brought my Express forward. But it would not do to risk a miss through excitement, so I waited till my hand got steadier: then, with both elbows planted firmly on the ground, I took a careful aim well behind between spine and shoulder, and pulled the trigger. The buck made a desperate effort to rise; but I had heard the unmistakable "thud"—pleasantest of all sounds to a *shikari's* ear—and knew that he was mine. He had just strength to stagger to his feet, and then fell back with all four legs in the air. My reward for days of fruitless toil had come at last! H. soon joined me, and together we gloated over my prize. He was a magnificent buck, with a well developed saddle, and horns which—measured fairly along the the outside curve—were just fifteen and three-quarter inches in length. My over-night wish had been fulfilled almost to the letter, and a more acceptable birthday gift than the one Fortune had bestowed, I could not possibly have had.

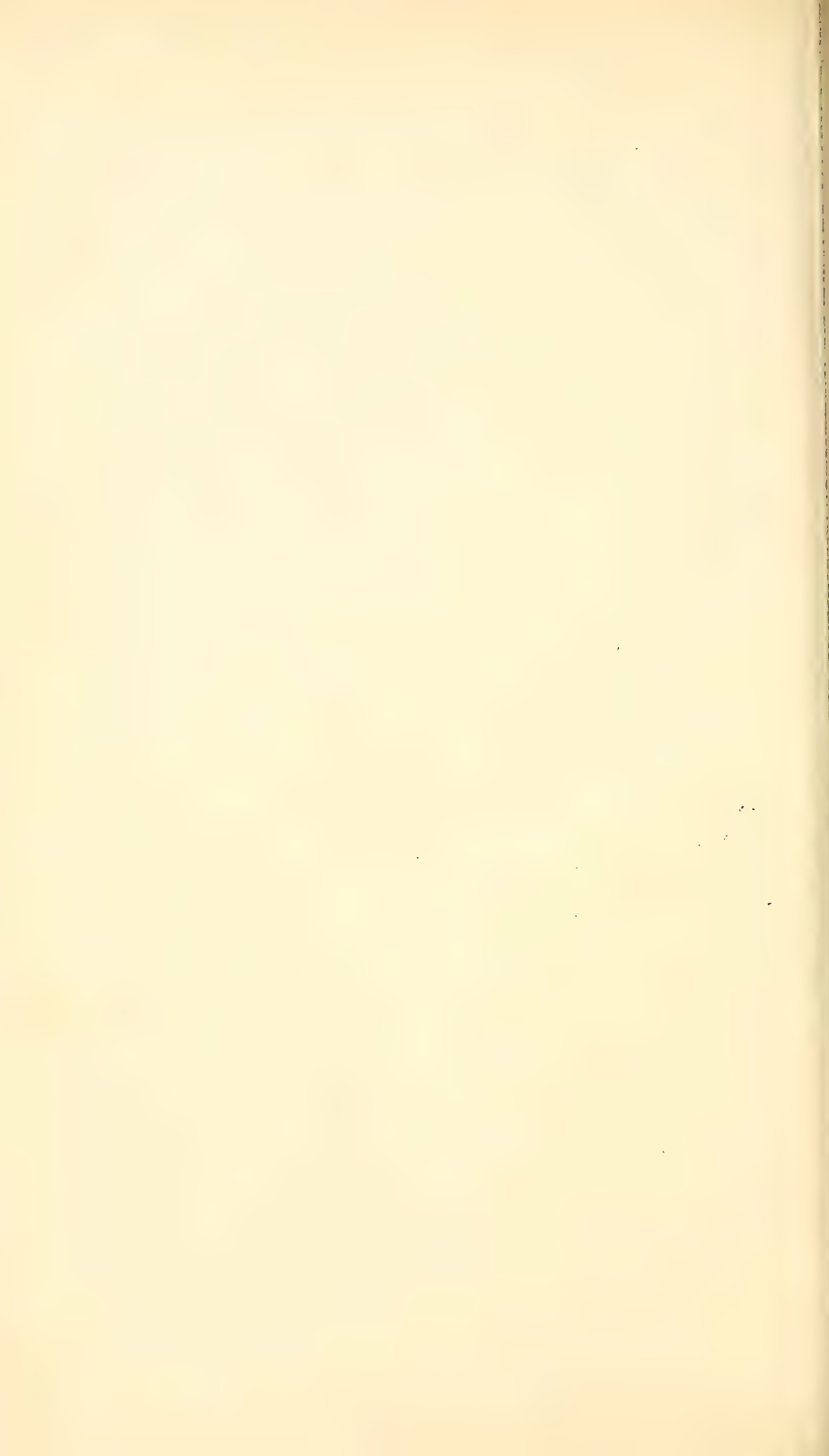
The day was still young, so we sauntered down the cliffs for half a mile, to a point where the grass had been burnt over a wide stretch of country some time before. We found the whole area covered with tender shoots of grass springing up amongst the cinders; and the recent footmarks on all sides showed that both sambur and ibex had been busy. Here we sat down to an *al fresco* breakfast under a rhododendron, whose

gnarled trunk and branches were festooned with long beards of grey moss. The cliffs at this point were rugged and grand in the extreme, and we had a superb view of the foothills. Bill, the *shikari*, squatted on the very edge of an awful precipice, and peered down from that dizzy height in the most unconcerned fashion imaginable. Every time I looked at him I felt a creepy sensation down my spine; but H. said he was used to it, and gifted with an unusually strong head. We had just finished the contents of the tiffin basket, and were lighting our pipes, when Bill crept a yard or two backwards, and excitedly signalled to us to come up. On our joining him, he told us he had seen two ibex below. I stretched myself full length on the ground and craned my neck out over Eternity. At first I could distinguish nothing, but shortly I saw the ibex on a ledge that jutted out from the face of the cliff, far down below us. While I looked they were joined by four others which had been hidden by the bushes, and the herd were evidently coming up for a banquet on the fresh grass. H., who knew every inch of the country, told me that the track reached the summit of the cliff some three hundred yards further down, and we started at once to wait for them there. The ibex were in no hurry, and a full hour elapsed before they rounded the sweep of the cliff and came into view. We waited till the herd—which consisted of two good bucks and four does—had fed some distance away from the edge, and then began our stalk. There was nothing to choose between the bucks, and H. decided to take the one on the right, nearest the cliff, while I was to go for the other directly he had fired. The stalk was an easy one as the ground was strewn with large boulders

which afforded us ample cover, and in ten minutes we had crept up to within fifty yards. H. had a perfect broadside, and hit his buck fairly behind the shoulder. He staggered forward, but dropped almost at once. At sound of the rifle the rest of the ibex made for the cliff at top speed. I got a fair shot at the other buck, and hit him hard; but the pace at which he was racing down the steep slope gave him an impetus which carried him over the cliff. Luckily he did not fall far, and Bill was not long in bringing up his head. The horns of H.'s buck measured thirteen and a quarter inches, and of mine twelve and three-quarter inches—both well up to the average. It was now late in the afternoon, so we made tracks for home, well satisfied, as may be imagined, with our day's sport.

This is the record of an exceptionally fortunate day. Ibex are scarce now owing to the indiscriminate slaughter in the past of bucks and does, aye and even kids. I have heard of one sportsman (?) who years ago got a herd of nine ibex into a *cul-de-sac*, and squatted himself at the entrance and blazed away until he had finished the lot. But for several years ibex shooting on the Nilgiris was absolutely prohibited, and under this salutary regulation the herds have increased. At present, as already mentioned, one saddle-back can be shot in a season under each licence issued, and this relaxation of the embargo can do no harm, for only a couple or so are bagged each year, and these patriarchs can scarcely be of much use for breeding purposes. But the difficulty is to enforce a rule of this kind, for the supervision of the game on a distant and quite uninhabited range like the Kundahs must necessarily be superficial, and it is impossible to stop the constant poaching by the Kurumbas living on

the lower slopes. Both the tiger and the leopard take their toll of the ibex ; but it is the two-legged poacher who does the damage. That ibex may again increase and multiply is a consummation devoutly to be wished, for—from the sportsman's standpoint—it is ibex shooting that lends to the Nilgiris their chiefest charm. Personally, I know that whether Fortune smiled or whether she frowned, I never regretted a jaunt to the Kundahs, for the wild grandeur of that mountain chain had for me a fascination that never palled. The sense of boundless freedom that thrilled through every nerve with each draught of the keen mountain air was in itself ample reward for a day's toil ; and I never look back to the halcyon days I spent with H. after ibex without regret. The Kundahs and the ibex are there, and to them I can return at any time ; but H., true sportsman and truer friend, sleeps the sleep that knows no waking on the Blue Mountains he knew and loved so well.



THE SAMBUR

Scientific name.—*Cervus unicolor*.

Tamil name.—*Kadumay*.

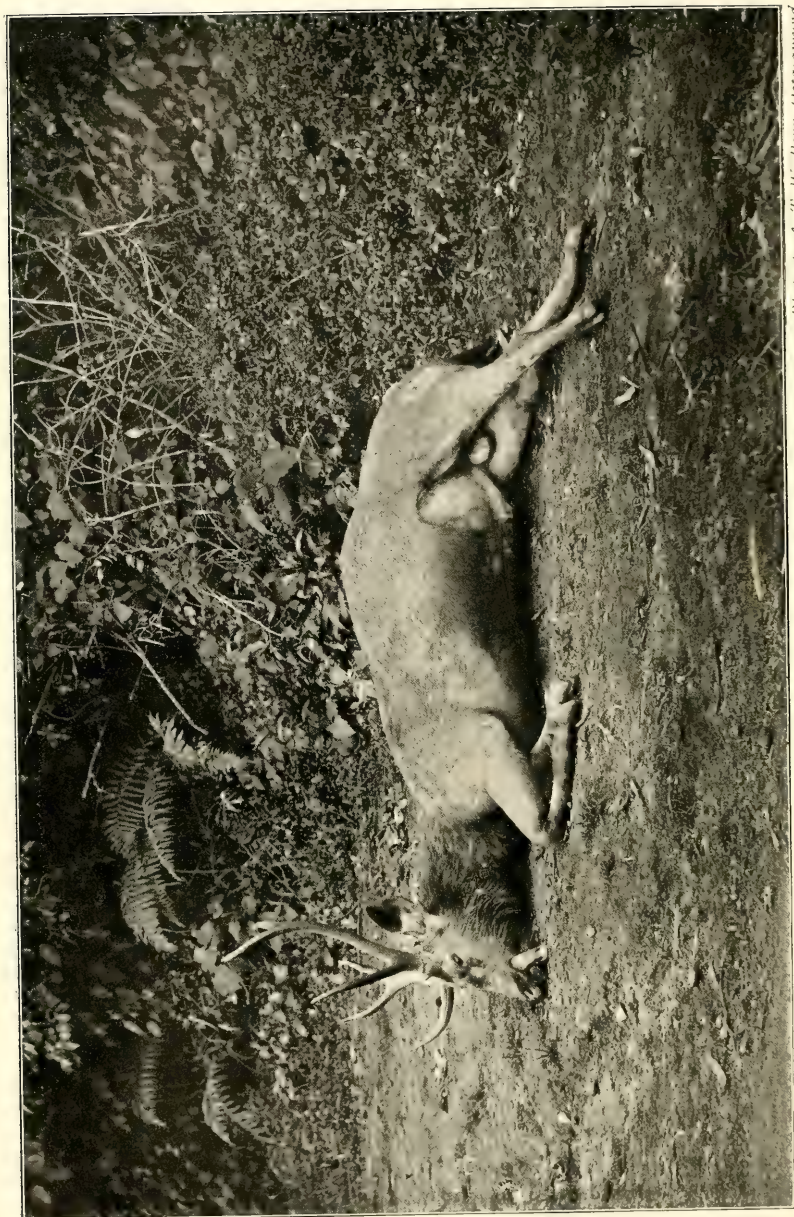
Kanarese name.—*Kadavay*.

Kurumba name.—*Kadavay*.

Nayaka name.—*Kadavay*.







THE SAMBUR

Photo. by A. T. W. Penn, Cotacaimund

THE SAMBUR

“ I by the Woodman’s art
Forecast, where I may lodge the goodly Hie-palm’d Hart,
To viewe the grazing Heards, so sundry times I use,
Where by the loftiest Head I know my Deare to chuse.”
Drayton.

THE sambur, the largest of the Indian deer, is widely distributed, being found over the whole continent, and in Ceylon, wherever there are hill ranges covered with jungle. Though only one species exists throughout, with no marked variation in size or appearance, the divergence in size of antlers from different parts of the country is extreme. The largest heads are found in Central India, and many very fine ones have been shot on the Nilgiris. In Wynaad the horns are usually somewhat shorter and less massive than those on the higher but adjoining plateau: they rule comparatively small on the Himalayas and in the East of the Peninsula: while in Ceylon a really good head, judged by the Indian standard, is unknown. A possible explanation of this difference in size of horns from different localities may be found in the sambur’s usual food. A stag’s antlers contain a large proportion of lime, and it may be that horns run largest where lime is most abundant in the herbage.

In colour the sambur stag is a dark brown, which deepens with age till an old stag is often almost black. The hind is much lighter in colour. There is a

distinctive patch of whitish or yellowish-white hair on the chin, the hair on the inside of both fore- and hind-legs where they join the trunk being of the same colour. The under surface of the tail is also covered with whitish hair, and as a startled sambur always cocks his tail, the effect is curious, viewed from behind, when he puts up the "white flag." The body hair is coarse, and round his neck the stag has a mane or juba which he can erect on occasion. It is this ruff of erectile hair perhaps more than anything which gives the old sambur stag his kingly air.

Normal sambur horns are three-tined. The brow tine is variable in length, but always meets the beam at a sharp angle. The surroyals are sub-equal. Frequently there are one or more snags or "sports"; and in one curious head I shot the posterior surroyal is wanting, while just above the brow tine is a sport of equal length. The cause of abnormal horns in deer is a question in which I have long taken an interest, and some years ago, in course of a letter to the *Asian*, I wrote:—" . . . the conclusions I have reached are:—

"(1) That in most cases abnormal horns are merely freaks of Nature; as unaccountable as, say, the Siamese Twins, or the six-legged goat.

"(2) That occasionally deformed horns are due to an injury to the horns themselves, such deformity disappearing with the growth of a fresh pair.

"(3) And that in rare instances imperfect antlers, recurring yearly, are the result of an injury to the pedicle or bony pedestal which carries the horn, which is not shed yearly.

"Abnormal growths of the second class are the most common, and several examples of them have come within my own ken. In the head of a sambur stag I

shot some years ago on the Kundahs, the right antler, from about the middle point of its length, branches backwards, instead of outwards and upwards, and ends in a stumpy point, the usual bifurcation being absent. Just where the deformity begins, the horn is fractured, probably by a bullet, and the abnormal growth of the horn is clearly ascribable to this. The left antler is perfect, and a fine one it is, measuring thirty-four and a half inches. The injury to the right antler probably occurred when the head was much smaller and in velvet; and there is no reason to suppose that the same deformity would have been continued in the subsequent pair.

“But the other day I happened on a volume entitled ‘A Descriptive List of the Deer Parks and Paddocks of England,’ by Joseph Whitaker, F.Z.S., in which quite a new cause is assigned for abnormal growths. This writer says:—‘It is curious how slight a wound will affect the growth of horns. Some years ago I was exchanging a few bucks with Lord Cowley, when one of those we took there got a severe bite on the fleshy part of the thigh from the dog we were catching them with. It was merely a flesh wound, and in two or three weeks the buck was all right and sound: but though he remained three or four seasons in my park, he always grew an imperfect horn on the side on which he had been bitten, and each year it was little more than half the size of the other horn.’

“This throws a (to me) new light on the question. But I see no reason to doubt the accuracy of Mr. Whitaker’s inference that the imperfect horn, recurring yearly, was due to the wound which the buck received. When the enormous effort it must cost Nature to build up, season after season, a mass of bony tissue

weighing many pounds, is borne in mind, and when one considers the constant drain this annual process of renewal must entail on the stag's strength, it is by no means improbable that any inherent or permanent weakness would retard the growth, and make itself manifest by the formation of an imperfect antler. I have not alluded to the effect of castration on the growth of horns, as it is outside the scope of the present enquiry."

There is, of course, the possibility that an imperfect horn is the result of injury to a blood vessel whose function is to supply the horn, and that the bite received by Mr. Whitaker's stag injured this blood vessel. I should like to see the subject taken up by some competent naturalist.

As a rule, stags have dropped their horns by the end of April, but there are frequent exceptions. I have shot stags in perfectly hard horn in July and August, when they ought to have been carrying undeveloped heads; and I once bagged a stag in velvet in December. Forsyth maintains that in Central India the horns are not shed every year; and I think it probable that in Wynaad, if not on the higher plateau, individuals occasionally carry the same head for two or more seasons. On this point Forsyth writes:—"I have taken much pains to assure myself of a fact, of which I am now perfectly convinced, that neither in the case of the sambur nor the spotted deer are the antlers shed regularly every year in these Central Indian forests, as is the case with the Cervidæ in cold climates. No native *shikari* who is engaged all his life in the pursuit of these animals will allow such to be the case; and all sportsmen out at that season must have seen stags with full-grown horns during the

hot weather and rains, when they are supposed to have shed them. Hornless stags are seen at that season, but the great majority have perfect heads. I have also known stags for successive years always about the same locality, and which I have repeatedly stalked at intervals during this time along with natives who constantly saw them, so that I could not be mistaken as to the individual; and all the time they never once dropped their horns." In my part of the country it certainly is not the case that "the great majority have perfect horns during the rains," in fact, conditions here are precisely the reverse, and stags in hard horn during the monsoon are most exceptional, but still these exceptions make a hard and fast rule impossible. I do not think that Forsyth, in the above quoted remarks, has furnished conclusive proof that he saw the same stag carrying the same head "for successive years." I believe that, occasionally, I have known a stag carry his head for two successive years—my belief being based on the same grounds as those adduced by Forsyth, viz., that in each case the stag frequented the same locality: that I stalked him repeatedly: and that every time I saw him at different seasons during two years he was in hard horn. But this is not proof positive, for there is the possibility that it was not the same stag I saw on every occasion, though in my own mind I have no doubt on the point. This annual shedding of their horns by deer is a remarkable phenomenon; and it has often puzzled me why Nature should, in the case of the deer tribe alone, build up a huge bony structure only to destroy her handiwork every year, and begin the whole process *de novo*. It would seem more rational and more in accord with Nature's usually wise laws, if

a stag's horns reached their maximum by slow annual development of the original pair, rather than by the formation of a fresh pair each year; and this method would certainly be more agreeable to the stag, for the process of renewal is a most painful one. Some years ago I had a tame stag, and as "Josh" was with me for four years before, like most pets, he came to an untimely end, I had ocular demonstration of the pain and inconvenience a stag suffers while his horns are developing. I caught Josh one morning when going my round of the estate, as a tiny fawn. His mother dashed away through the coffee, and a cooly threw his *cumbly* over Josh, and we secured him. I fed him with milk from a reed until he was able to fend for himself, and we became great pals. We were a happy family in those days. There were eleven dogs, Rani my monkey, two leopard cats, two wild pigs, a mongoose, Josh, two mynas, and myself, and we all lived together in the greatest amity—save the cats, whose attitude to everyone but me was one of armed neutrality. Though the dogs were keen on sambur, they recognised from the outset that Josh was one of the family, and never molested him in any way. Two fox terriers, Jack and Sugar, were Josh's especial friends, and every morning the three would engage in a game of romps. But it was always give and take. If in the excitement Josh lunged too forcibly or the dogs nipped a bit too hard, there was never any display of temper. When they were tired out, Josh would lie down in the verandah, the dogs would curl up against his stomach, and all three would go to sleep together.

As Josh grew older, and his horns developed, he would suffer no liberties from the men on the estate;

but it was a remarkable fact that with the women he was always gentle. Each morning he would appear at the bungalow, and stand by my table while I called the roll. When the women trooped off to their work he would follow them. All day long he was their inseparable companion, lying under a tree while they were weeding or picking, and in the evening he would accompany them back to their lines. He regarded himself as their protector, for if a man appeared, he would jump up and menace the intruder with his horns. Two or three times he knocked over the Maistry in charge of the women, and at last complaints became so frequent that I had to tie him up every morning till the women had gone to their work.

I have mentioned before that the sambur's mane is erectile ; but he has also the power to erect the hair along his back. When I petted Josh his tail would go up, and his mane and the hair on his back would rise, while he would evince his pleasure by a low gurgling sound in his throat. His hair would bristle in the same way when he was angry or startled. For a reason I could never determine, he and the monkey were deadly enemies ; and whenever Josh caught sight of Rani he would stamp with his fore-foot, while the ruff would rise round his neck. And Rani would scamper to the top of her house, and from that coign of vantage pour out the invective in which monkey language is so rich.

Josh dropped his horns every year ; and it is a reasonable inference that young stags at least are regular in shedding their horns. I find from my note-book that the first pair were shed early in April, and the others at the beginning of May. Josh always had a bad time while the new pair were growing. During

this period he kept out of everyone's way, and lost his spirits. About September the new horns were mature, and Josh was then himself again.

Frequently in the jungles I have come across a circular piece of ground, ten or twelve feet in diameter, kept quite clean by the constant trampling of sambur, and always under an overhanging tree. I never could account for these clear spaces, which were not forms, and certainly could not credit the explanation given by the natives—that they were the “swinging-places” of sambur, and that whenever a stag passed one he hooked his fore-legs over the overhanging branch and swung backwards and forwards, his hind-legs trailing on the ground, keeping the space beneath clear! Josh solved the riddle for me. One day I found one of these open patches under a tree close to my bungalow, and feeling sure it was Josh's work, I watched him. A few mornings after I saw him go to the tree and indulge in the most extraordinary antics. He pawed up the ground, turning slowly round at the same time, then stood straight up on his hind-legs like a goat; and this was repeated over and over again. Many a morning and evening afterwards I caught him going through the same gymnastics, but his reason was, and has remained, a mystery. Possibly stags work off a redundancy of animal spirits in this way; but why they should select, and adhere to, a special site for their performances, is a puzzle.

Poor Josh came to a sad end. I was at my pulper house one morning, and Josh was feeding close by, when a Maistry from a neighbouring estate passed along the road with his two dogs, one a powerful brute, a cross between a retriever and a pariah. The dogs winded the stag, and he, being so used to my own

pack, allowed them to get close before he realised their intentions were hostile. The next moment Josh was flying through the coffee with the dogs in full cry after him. I followed as fast as I could, and found Josh stuck fast in a swamp at the bottom of the estate, with the dogs worrying him cruelly. Had he been free, I have no doubt he could have kept them off, but with his legs fast he was at their mercy. I drove the brutes off, and led Josh back to the bungalow, where I dressed his wounds. But ever afterwards he was a changed sambur. He shunned the bungalow, and grew suspicious of everyone. He took to living entirely in the jungle near by, and I saw him occasionally; but directly I tried to approach he would rush away in alarm. Soon he began to wander further afield, and one day he roamed as far as the bazaar, four miles away. I at once sent men to bring him back, but they could not find him. A day or two after I learnt he had wandered to the lines on an estate some distance past the bazaar, and the coolies had killed him, though they must have known he was a tame sambur. Poor Josh! A more interesting or intelligent pet I never owned.

The record sambur head in point of length is undoubtedly one of which Major Impey, Political Agent at Bhopal, wrote as follows to the *Asian* :—

“The following are the measurements :

				Right. in.	Left. in.
Along outside of horn	...	...	...	48	50 $\frac{1}{2}$
Inside brow tine from fork...	...	...	...	15 $\frac{1}{2}$	16 $\frac{1}{2}$
Girth above base	...	...	...	9 $\frac{7}{8}$	9 $\frac{1}{2}$
Girth round lower fork	...	...	...	13 $\frac{1}{8}$	12 $\frac{1}{4}$
Girth round upper fork	...	...	...	13 $\frac{1}{8}$	13
Width between	...	...	...		24

“The measurements were most carefully taken. The

beauty of the horns is enhanced by their massiveness. At the thinnest place, between the forks, the right horn measures seven and three-eighths and the left seven and a half inches. The sambur to whom these horns belonged was shot near Dewangunj, in the Bhopal State, by the late Sultan Dulah Nawab Ahmedali Khan, husband of H.H. the present Begum of Bhopal. The stag had been known to the villagers for over twenty years, and was killed in March or April, 1898, on a jungle path, one moonlight night, when returning from a feast on the mhowa. The head has been set up, and is now in the Palace of Bhopal, in the company of three other splendid heads, the next biggest being a forty-eight incher. The measurements were taken by me and Mr. Low of the Indian Civil Service."

I know of no head, of which authentic measurements have been recorded, to equal this in length; but the "girth above base," which I take to mean girth round burr, is only nine and seven-eighths inches, and this has frequently been surpassed. Sclater claims that Gilbert's head must have been fifty inches in length. Regarding this, I wrote to the *Madras Mail* some time back, when a discussion on record heads was being carried on in that paper:—"In the Journal of the Bombay Natural History Society, III, page two hundred and twenty-eight, Mr. Gilbert gives the history of a stag he fired at on the Tapti river, in the Central Provinces. The bullet severed one antler just above the brow tine, and the piece picked up measured forty-four and half inches. Sclater calls this 'the finest sambur ever recorded,' and adds 'the whole antler must doubtless have measured at least fifty inches.' But as the antler was severed just above the

brow tine, I think an allowance of six inches for the stump is too much, as anyone can see by examining the formation of a stag's head."

Forsyth gives the head of a stag he shot on the Bori as "the largest sambur horns he had ever seen." These measured "base to tip forty one inches, round base ten inches, and eight and half inches at thinnest part of the beam." This head is fairly massive, but the length is very ordinary, especially for Central India.

Osmund Beeby, in the *Asian* of 3rd September, 1892, gave measurements and photographs of two fine heads:—

					Right. in.	Left. in.
No. 1.	Burr ...	...	...	...	9 $\frac{3}{4}$	9 $\frac{3}{4}$
	Main beam ...	...	...	...	45 $\frac{1}{4}$	41 $\frac{3}{4}$
	Brow antler ...	...	...	...	18 $\frac{1}{4}$	17 $\frac{1}{4}$
	Spread ...	...	...	...	40 $\frac{1}{2}$	
No. 2.	Burr ...	...	...	...	9 $\frac{1}{8}$	8 $\frac{1}{2}$
	Main beam ...	...	...	...	39	41 $\frac{1}{4}$
	Brow antler ...	...	...	...	19 $\frac{3}{8}$	19 $\frac{3}{8}$

Baldwin states that "the finest stag he ever shot had thirty-seven inch horns, upper tine eleven inches, lower tine thirteen inches." This was a Himalayan head.

Sterndale mentions a head "right forty-five inches, left forty-three inches, above burr nine inches."

Jerdon says (in his usual loose way where dimensions are concerned), "length rarely exceeds forty inches, but some are recorded four feet along the curvature, the basal antler ten to twelve inches or more." *Where* these heads are recorded, he does not state.

"Hawkeye," in writing of the Nilgiris, says, "good heads on these hills rarely exceed thirty-eight or forty inches." The "Stag of the Sentinel Rock," which appears to have been his best, was a thirty-nine

incher ; while the head of "The Monarch of the Glen" measured—length thirty-six inches, spread from tip to tip thirty-eight and a half inches.

The Royal Natural History states "the longest recorded have measured forty-eight inches, but girth at middle of beam only six inches." The history of this head is not given, but it certainly is not a record for length. Mr. Lyddeker adds, "perhaps the finest known pair is one in which the length is forty-four inches, span forty-five and three-quarters, and girth just above brow tine seven and three-quarter inches." But save in regard to span, this head is mediocre.

Burke mentions two fine heads—length forty-six and a quarter, and forty-five and a half inches and girth ten and a quarter and eight and a half inches respectively.

With regard to the record for the Nilgiris, till lately I thought that a head in my possession was the largest ever recorded for these hills. The measurements of this head are :—

				Right, in.	Left, in.
Length	...	...	...	40	39 $\frac{1}{2}$
Round burr	...	...	...	11 $\frac{3}{4}$	11 $\frac{1}{2}$
Above burr	...	...	...	9 $\frac{3}{4}$	9 $\frac{1}{2}$
Round main beam above brow antler	...	...	...	8	8
Length of brow antler	...	...	...	20 $\frac{1}{4}$	18 $\frac{3}{4}$
Greatest spread	...	...	...	41 $\frac{1}{2}$	

The horns are beautifully symmetrical, and more rugged than any head I have ever seen—in fact the "beading" on beam and burr, which adds so greatly to the beauty of a head, is quite phenomenal. Curiously enough, in writing of this head, Burke gives the girth above brow antler (eight inches) as the *maximum* girth,

But I find from Burke that my head is not the Nilgiri record, as he gives the following measurements of a head shot on the hills by Mr. E. Hadfield, which far exceed mine :

				Inches.
Length...	...	...	...	42
Girth ...	...	...	...	11
Tip to tip	...	...	...	39

With such a width between tips, the span or spread must be enormous, if the tips follow the usual rule and curve sharply inwards. Burke does not say where the girth was taken : if it is girth round burr, my head is more massive : if it is girth just above burr, this head beats mine by one and a quarter inches. Putting the above evidence together, the Bhopal head is the record for India in length, and a Nilgiri head—either Mr. Hadfield's or mine according as the girth of the former is or is not round the burr—holds the Indian record for girth.

It would be a great advantage if sportsmen would adopt some uniform system in recording the measurements of horns, and of all trophies for that matter. In the case of horns, the details required to convey an adequate conception of their size are :

(1) Length round outside curve from burr to tip of loftiest tine.

(2) Girth round burr.

(3) Girth an inch above burr.

(4) Girth at thinnest part of beam.

(5) Greatest span or spread, measured from outside of beam to outside of beam. To obtain this measurement correctly, the head should be laid face downwards on the ground, and a peg driven in on the outside of each horn at the widest point. The distance between the pegs will be greatest span.

- (6) Span between tips of horns.
- (7) Length of brow tine.
- (8) Details of points in which the horns are out of the common, such as snags, etc.

If all horns were measured and recorded on some such system as this, to compare them would be an easier task than it is at present.

From the time his horns are shed till the fresh pair have reached maturity, which, broadly speaking, would be from May to September, the stag leads a solitary and secluded life. But in the comparatively rare cases in which stags do not drop their horns, they keep with the hinds all the year round. I say this advisedly because the stags I have referred to earlier in the chapter as having carried their horns throughout the year, were always with hinds when I saw them. About the beginning of October the rutting season begins, and from this date to the following April or May the stags run with the hinds, while the latter are also more gregarious, so that during these months herds of ten or twelve, and on the higher plateau much larger ones, are common. At this period the stags fight fiercely for the favour of the hinds. Many a time I have sat and watched these contests, which can best be described as pushing matches, though often severe wounds are inflicted by the brow antler. The combatants would push and strain for a few minutes, then separate, and frequently begin to graze. After an interval the fight would be resumed by mutual consent, and these bouts would go on till one party acknowledged defeat by retreating. On one occasion I saw the victor take a mean advantage of his vanquished adversary. While the latter was trotting away, the other stag rushed at him from behind. The

beaten stag had a good head, and I followed and bagged him. On examining him I found his assailant's horn had penetrated his flank, at the point of junction between hind leg and stomach, for several inches, and I think it probable the injured stag would have succumbed to the wound.

The period of gestation is about eight months, most fawns being dropped in the monsoon, at the end of June or beginning of July. But to this rule there are exceptions, for I have several times seen a hind with newly-born fawn at foot in the early spring. I think it probable that hinds—at all events the young ones—breed every year, for in Wynaad it is not unusual to see two fawns, one much older than the other, running with the mother. In rare cases the hind drops two fawns at the same time; but in the instances I allude to above, the difference in size precluded the possibility of both fawns having been produced at the same birth. The fawns have no *maculae*: the sambur being the only Indian deer with unspotted young. Hence the specific name *unicolor* is most appropriate—far more so than the former one *aristotelis*, which was the name given by Cuvier to an abnormal *horn*.

Sambur are usually described as nocturnal animals, and this is so far correct that they feed by night. But on the Nilgiris and in Wynaad, at all events, the hinds and young stags come out to feed with systematic regularity in the late afternoon, and they do not seek cover till the sun is well up in the morning. A big stag, however, is always a wary customer, and he seems to know instinctively that his trophy makes him the object of the sportsman's quest. He does not usually leave cover for his feeding ground till after dark, and he seeks his form again at the first flush of

dawn. But in the rutting season he throws off his wariness to some extent, and during that period he comes out earlier and stays out later than his wont. It is this change of habit in the big stags that gives to both plateaux one of their chief attractions as a sporting country, for the stags can then be bagged by stalking ; and surely one stalk, with its long drawn out excitement, with the keen pleasure it gives when you have pitted your reason against the stag's instinct and won the equal fight, is worth all the beats in the world.

While on the subject of the sambur as a nocturnal animal I may add that nowhere can I remember to have seen any reference to the wonderful instinct which guides a wild animal during its nightly rambles—which enables it to rush in safety over even the most dangerous ground at headlong speed, in darkness where its keen sight can be of no avail. So unerringly is the power exercised, that one is almost driven to endow wild animals with a sixth sense, located in their feet, and keener even than their senses of sight or smell, to which they trust in such circumstances. In the sambur this faculty is very marked. Frequently I have known them career at full speed down the broken ground round Rockwood Peak on a pitch dark night—ground which, even in daylight, I have to negotiate with the greatest care. No matter how highly developed their sense of touch may be, this will not by itself explain the mystery, because the feet have not time to *feel* their way—they must know their proper places *before* they reach the ground.

Sambur, as mentioned above, are forest-loving animals, and are never found away from heavy jungle ; but it by no means follows that they invariably lie up in thick cover during the daylight hours. On the

contrary their favourite cover is a form in high grass, close to the jungle into which they can retreat if necessary ; and the form is usually made under the shade of a tree. There are dozens of such forms in different parts of my deer preserve, which are used year after year, and it is a curious fact that when several animals are lying close together, their forms all point in the same direction. The reason is, I fancy, that by a common instinct the forms are designed to secure the greatest advantage from the shade afforded by the trees under which they are made.

It is impossible to convey in words an adequate impression of a sambur's call. This is usually spoken of as a "bark" or "bell," and perhaps a combination of the two terms (using the latter as implying a similitude between the deer's call and the ring given out by metal when struck) would best describe the sound. The idea of a bark is given by the short sharp note, forcibly expelled from the throat ; while the sub-metallic tinkle that runs through it furnishes the bell. It might with propriety be called a metallic cough, and is common to both sexes, the stag's note being deeper and more sonorous than that of the hind. A startled sambur will keep up a succession of these bells, and frequently, when I have been an auditor of the performance at close quarters, I have noticed that at intervals the sambur seems to miss the note, when the bell becomes a wheezy whistle. Blanford says : "There is also a sharp snort or cry of alarm caused by the presence of a tiger or panther, or by the sight of man." I have watched sambur when aware of the neighbourhood of both tiger and leopard, but I have not noticed that their bell on such occasions is either shorter or sharper than the ordinary one. But there

must be a subtle difference, because when a sambur bells at a tiger or leopard or wild dog the call is at once taken up by all the sambur within hearing, whereas on ordinary occasions a belling sambur is left to indulge in a solo. I join issue with Blanford in regard to the latter part of his assertion, for I am quite certain that neither stag nor hind bells at sight of a man when thoroughly convinced that the object is a man. I give some incidents in support of my view further on in this chapter, which to me seem conclusive.

I have seen the sambur described by some writers as a "shy" animal, who shuns the neighbourhood of man ; but in my experience he is, of all game animals, the one least impatient of man's propinquity. Compared, for example, with the bison, the sambur may be said to affect man's society. Any afternoon or morning I can see a dozen sambur within a few hundred yards of my bungalow, while frequently they come into my verandah in their nightly rambles.

A sambur's life can scarcely be a merry one, for it is passed in an incessant watch against the attack of his insidious foes the tiger and leopard. But his most implacable enemy by far is that bloodthirsty fiend, the wild dog. And so well does he recognise this that the advent of a pack of wild dogs means the instant flight of all sambur from the vicinity. It is conceivable that by his vigilance the sambur often escapes from the tiger or leopard ; but when once the wild dog is on his track, nothing can save him. Crafty, untiring, cruel and relentless as Fate, the wild dog is the curse of the country.

Living as I do in a sambur country, with a large and carefully guarded preserve at my door, I have had

exceptional opportunities of studying this king of Indian deer. To no sportsman who knows the sambur need I make his claim to this ambitious title good : for each such reader will recall, with me, many a glorious morning when, in the rosy dawn, he watched a lordly stag in the midst of his harem, and admitted that, with swelling neck and proudly poised head, he looked "every inch a king." Nor will the retrospect stop here, for that same reader will remember how inch by inch, *et fert suspensos, corde micante, gradus* ; how at last under cover of a friendly bush he crept within range ; and the supreme moment when, gulping down his excitement, his rifle rang out and the stag bit the dust. Lifeless on the turf he had roamed with majestic tread, was not the stag a king still ?

But an old sambur stag is a very cunning monarch, and especially is his craftiness manifest when he is driven with beaters. Dogs will always make him break cover ; but when men are employed, he will often trust, and trust successfully, to his wits to escape. I was once on a visit to a brother planter, whose estate was situated in the heart of a grand game country. B. was a rattling good fellow, but sport with its ever fresh joys was a sealed book to him. Soon after my arrival I made the acquaintance of a splendid stag, whose haunt was amongst the wooded hills close to the *tote*, and for several days I was out after him morning and evening ; but so jealously was he guarded by the ladies of his harem that I could never get within range. One crisp December morning I started before daylight for a prowling round the stag's usual haunt, but his lordship did not show. I got back to breakfast in rather a despondent frame of mind and found B. after his morning's work comfortably ensconced in a long arm-chair. I dropped

into one by his side, and as we were chatting he casually mentioned that shortly after I had left the coolies had brought him word that a large stag was lying in the cultivation at the bottom of the estate. He had not troubled to investigate himself, but the *shikari* I had brought with me had gone to get news, and had not yet returned.

Before we had finished breakfast "Bill" came in with his report, and I could see by the delight which beamed from his pock-marked phiz that it was favourable. He said that before he reached the bottom of the estate, the stag had crossed the stream which bounded it on that side, and was feeding up the opposite hill with four hinds. Bill swore he was the identical stag I had been after so long, and I saw no reason to doubt this, as we knew him well. Many a time had we watched him together, and marked his dark coat and unusually developed mane. Bill had followed him up and had seen the herd enter a *shola* about half a mile away. He had left a cooly to watch, and had hurried back with the news, feeling sure the stag meant to harbour in the cover for the day.

All further thought of breakfast was of course at an end for me, and in half an hour I had mustered a gang of the estate coolies. With some difficulty I persuaded B. to accompany me, "though where the fun comes in," he said, "I'll be hanged if I can see." We found the *shola* to be a long, narrow cover, running down the valley between two steep grass hills. I regretted having left my dogs at home when starting on this trip, but the beaters evidently meant business, for several had provided themselves with tom-toms and empty kerosene oil tins, while one man had had the forethought to bring some wooden rattles from the store. The

cooly, who had taken up his post on a hill above the cover whence he could command the country for miles round, assured us the stag and hinds were still in the *shola*. This was encouraging, and Bill and I were very hopeful as we arranged the beat. The men were formed into line at the head of the ravine, and were directed to begin when B. and I had reached our posts, which were on either side of the *shola*, and about half way down its length. Bill went with B., while I took a cooly to carry my spare rifle.

From my station on the hillside, under cover of a large rock, I could see across the *shola*, and I watched B. take up his position on the opposite slope. Directly he had settled himself under a shady tree, I stood up on the rock and waved to the beaters. Then pandemonium was let loose. Closer and closer came the din, until the beaters reached the middle of the *shola*, when a stag broke on the opposite side, and below B. Would that my pen could do justice to the scene which followed! The swell of the hill hid the stag from B.'s view, but I signalled that the stag was breasting the hill, just to his right. Bill caught my meaning, and I saw him bend down to B. and point in the right direction. But B.'s equanimity was not so easily disturbed, for he kept his seat under the tree, and with his gun across his knees puffed at his pipe. At last the stag, which had trotted up the hill, stopping once or twice to listen to the beaters, caught sight of B. and made a rush for the summit. But B.'s stoicism was phenomenal, for even now he did not trouble to get on his feet or raise his gun to his shoulder. As the stag crossed, however, a puff of smoke rose from his breeches, and I heard the crack of his gun. The next instant the stag tottered, fell over, and rolled

headlong down the hill. B. had simply pulled the trigger as the gun lay across his knees, and, *mirabile dictu*, had shot the stag dead! Encouraged by the sound of his gun, the coolies increased their din inside the cover, but though we beat it to the end nothing else did we see, except the four hinds, which broke together at the end of the drive. B. and I had followed up the beaters, and we met at the bottom of the valley. "Deuced good shot of mine," he remarked as he rolled a cigarette, with as much nonchalance as if dead shots from his lap were everyday occurrences. "Too good to be true, old man," I rejoined, laughing. "That's pure jealousy," said B., "because you couldn't have done it." Just then Bill came up vainly trying to conceal the grin which spread all over his face, and I took him to task for having made all this fuss over an ordinary stag, for B.'s head, though a fair one, certainly had not belonged to the stag for whose trophy I thirsted. But Bill held stoutly to his story that he had tracked the big one to this *shola*, "and," he added, "if the watcher speaks the truth in saying he did not leave it before we came, he must be in it still." "Nonsense," I said in Tamil, "no stag would have remained in the cover through that infernal din," but still Bill begged to be allowed to beat the cover again. I felt this would be a waste of time, but he pleaded so earnestly that at last I consented. This time Bill accompanied the coolies himself, and made the most careful arrangements, impressing on the men the importance of keeping line and of ransacking every nook. Though they evidently regarded him as a harmless lunatic, the men were in thorough good humour at the feed in prospect, and willingly went to work again.

B. and I took up our former posts, and once more the din began. Bill was on his mettle, and as they drew closer I could hear him swearing at the beaters in true native style. "Yell, you devils, and don't leave a bush unbeaten." "Matha, you blank son of a blank mother, if you get in front again I'll teach you to keep line." "Boma, you doubly d-d rascal, you've got your mouth shut. I'll open it when I get at you. Yell, you devils, yell."

The racket was worse than ever, and the beaters were almost opposite my post, when above the noise I heard Bill's voice, "Look out, sir, look out, the big stag is coming. To the left, to the left." I heard the unmistakable rush of a sambur in the *shola*, and the next instant to my intense surprise a grand stag broke on the other side. What a beauty he looked as he came into the open, with his head held so high that his massive antlers rested on his haunches! The line he was taking would have brought him close to B., and I ought by all the canons of beating to have left him alone. But taught by the experience of an hour earlier, I could not bring myself to give B. the shot, so I knelt down and covered the stag carefully. The distance was full three hundred yards, but I knew my rifle; and waiting till the stag stopped and turned half round to listen, I pulled the trigger. He lurched forward and I thought he was going to fall; but he recovered himself, and tore up the hill. I sent a second bullet after him, and B. emptied both barrels as he passed. Still the stag held on, and the fear that I had missed him made me feel sick. B.'s bullets had gone singing down the hillside, and I was by no means sure of my second shot; but surely my first had taken effect? We soon found blood on the track, which was

deeply marked on the grass, and over the brow of the hill we came on the stag, stone dead. He was a grand stag, and I think the heaviest I have ever seen. His coat was almost black, while the ruff on his neck was extraordinarily thick and long. His head was one of the best it has ever been my lot to bag, measuring thirty-six and a half inches.

If before this adventure anyone had told me that a sambur stag would remain concealed in a *shola* through which a gang of yelling beaters had forced their way, I should certainly have regarded him as a lineal descendant of Ananias. But seeing is believing, and I know now that an old sambur stag is the most crafty of his kind.

I once bagged a stag that had achieved such a reputation for cunning that he was known locally as the Wizard. Years ago, I found myself at the bungalow of a planter near the village of P. On the first evening the after-dinner talk turned on *shikar*, and my host told me of a certain stag which had hitherto baffled all attempts to bag him. At the back of the bungalow rose a lofty hill, up to the base of which ran heavy forest, and in this the stag had lived for many years. A narrow neck of grass jutted out for three hundred yards from the summit of the hill, surrounded on three sides by precipitous walls of rock, the only approach being from that side of the hill on which the bungalow stood. A very steep deer track led up from the forest to the summit of the hill, and the stag was wont to ascend by this, to breakfast on the grass which covered the top. More than one sportsman had toiled up the hill to try to bag the stag, but all efforts so far had failed. The stag was fully aware of his impregnable position, and while feeding would concen-

trate his attention on the one practicable path that gave access to his stronghold. Directly the *shikari* gained the top of the hill and made for the isthmus of grass, the stag would decamp down the face of the cliff, into the forest below. His vigilance and cunning had made him quite a local celebrity, and the natives declared he bore a charmed life. Many a bullet had sped after him, he at one end of the isthmus, the man with the gun at the other, but hitherto he had always escaped scatheless.

After hearing my host's account of this wonderfully cute stag, I determined to try to make his acquaintance the next morning. I was ready before daylight, but the outlook from the porch was scarcely inviting. There was a raw feeling in the air, and a drizzling rain was falling in the steady way that, in Wynaad, usually presages a wet day. I slowly climbed the stiff hill, and advancing with the greatest caution, reached the top after half an hour's fag. A strong cross wind was blowing, so I was easy on that score, and gradually raising my head, I peeped over the ridge that marked the beginning of the narrow tongue of grass. There was now light enough to see clearly, and my heart bounded when I saw the stag occupying his usual coign of vantage, and, contrary to his usual custom, engrossed in a survey of the valley below him. Inch by inch I wriggled through the grass, my heart in my mouth. I had got fifty yards nearer, when he began to stamp with his fore-foot; and he kept his gaze so steadily fixed on the forest below, that I was able to creep up to within a hundred yards of his position. Here the long grass ended, and I dared not advance another yard; so, covering him behind the shoulder, I fired. The stag turned like lightning to

retreat down his usual path, but my second barrel was quicker even than he, and I dropped him just at the edge of the precipice. My first bullet, I found, had taken him a little too high up ; my second had entered his neck close to the junction with the head, causing instant collapse. After all I had heard, I was disappointed with his horns, and they certainly appeared much larger when I saw him first in the light of early dawn. They measured thirty-one and a half inches. After I had looked him over, I walked to the edge of the cliff to try to discover what had kept the stag's attention riveted on the *shola* below, and the mystery was soon solved, for shortly a Kurumba, armed with an old muzzle-loader, made his appearance. Knowing from the shots above that the game was up, he scrambled up by the deer path, and great was his disgust when he found that I had bagged the stag. This sable sportsman (I got to know him well in after years) had sallied out with the intention of outwitting the stag by an advance on his flank up the precipice ; but the wary beast was on the alert, and I am certain my Kurumba friend would have had his trouble for nothing. I chuckled at the thought that I had wiped " Dawson's " eye after he had, by his carefully planned stratagem, been the unconscious cause of my own success ; but we became friends when I made him a present of the meat, which to him was the sole attraction.

I once (from my diary I see it was on the 9th December, 1906) had the good fortune to see five splendid stags together. I was roaming over the western slope of Rockwood Peak in the evening, when, far up above me, I spotted a stag. As I watched him, he began to bell, and shortly, higher up

still against the skyline, another stag appeared. Even at this distance I could see that the second stag was a monster; and he leisurely made his way down in answer to the challenge. "Now," I said to my gun cooly, "we shall see a fight," for it was the height of the rutting season. The ground between the sambur and myself was so open that I had to make a flank movement, and work my way through the fringe of jungle which lies just below, and follows the line of, the Peak. I pushed on till I judged I had reached a point opposite to the first stag I had seen, and then crept to the edge of the cover. Ye gods, what a sight! There, three hundred yards away, were five stags in a bunch! The four nearest to me were all warrantable stags; and alone, any one of them would have been well worth shooting. But the fifth, who was standing above them on the crest of the hill, was a patriarch: a veritable monster with a magnificent head and a coat that looked jet black: the finest stag I have ever seen in Wynaad. "His head or none," I said to myself; but it was impossible to advance without being seen, as the ground between was all grass, and the four smaller stags were below and all round the big one. I waited in the hope that they would feed over the brow of the hill; but evidently the company had assembled for some other purpose than dinner, for though the two nearest to me occasionally moved backwards and forwards to nibble at the grass, the others stood like statues. My cooly urged me to fire, but the big stag was quite three hundred and fifty yards away, and I determined not to risk a miss with the certainty of frightening him out of my preserve. We watched till it was too dark to see, and as the stags still kept their position, I wended my way back to the bungalow,

comforting myself with the reflection that I had done the right thing in not risking a very long shot in an uncertain light, and that I would reap the reward of my forbearance later on.

Evening after evening I prowled over the hill, but alas! I did not see the monster stag again. On the fourth evening, I made out a stag standing under a tree above the jungle, and at the base of the Peak. Once again his position made a stalk almost impossible, for I had a long stretch of open ground to traverse to get within shooting distance. Through the glasses I could see he was a very fine fellow, but not the monarch I had seen before. Between him and myself lay the strip of jungle I have already alluded to, and as this is full of thorny undergrowth, through which it is impossible to push without noise, and the stag was just at the upper edge, an approach through the cover was out of the question. The only feasible way was up the hill to the summit, and then round the top of the jungle; and this way was barred by the open nature of the ground. It seemed that once again I should have perforce to return without making an effort to bag the stag, when, to my delight, I saw a dense curtain of mist whirling up over the peak. In a few minutes it had covered the country so completely that I could not see ten yards in front of me. Up the hill I streaked at my best pace, till I reached the summit: then I crept along the top edge of the jungle. The mist was still so dense that I was able to get to the end of the cover and well out on the grass hill beyond, at a rapid pace. In front of me now towered the rocky crown of Marpanmadi, from which a ridge ran down to the jungle. Just over this ridge was the point where I had marked the stag. The grass was high—over my

head—but the mist had made it so damp that I could push my way through without rustling. Fifty yards would take me to the summit of the ridge; and if the stag had not entered the jungle in the interval, I had him. Just then the mist lifted with startling suddenness, and at the same moment came “DHHUNK” —a ringing bell that sent me and the gun cooly into the grass like shot rabbits. Half-way down the shoulder of the hill was a solitary rock, and peering through the grass stems, over this rock I saw the long cocked ears of a hind. Truly a hard piece of luck! The hind kept belling: she had seen us, but could not make out what we were. We had perforce to squat in the grass; the only chance now was that the stag, moved by the curiosity which all deer possess so strongly, might come up to see what was agitating his wife. A full quarter of an hour we waited, the hind gazing intently at us, when I saw the ivory tips of the stag’s horns appear above the rock. Slowly his whole head came into view; and there the pair stood, belling and stamping together. Just one step forward, and I should get a sight of his shoulder; but though I waited another five minutes, he did not move. It was fast growing dark, and at the distance, perhaps eighty yards, the stag’s neck—the only vulnerable part I could see—was not a large mark. But one point was in my favour: the grand head and shaggy neck formed a perfect silhouette against the crimson sky behind. Slowly I raised myself on my knees till I could just see over the grass, and put up my rifle. Ivory triangle, ivory bead, and the stag’s neck all came into line, and at the shot I saw him go clean heels over head, though as he fell away from me, and on the opposite side of the dividing ridge, I could not see

what followed. We raced along the hill, and from the point where the stag had been standing a broad trail was crushed in the grass, made by the stag's body as it rolled down. From here to the jungle the hill dropped in a series of miniature precipices, and to follow in the dusk over such ground was not easy. But after a bad tumble or two I reached the edge of the jungle, and there I found the stag brought up against a tree, stone dead with a bullet through the neck. He had a perfect head, thirty-five and a half inches from burr to tip of loftiest tine.

Does or does not a frightened sambur bell when it thoroughly realises that the object of its terror is a man? Personally, I have no doubt whatever as to the correct answer ; but authorities differ on the point. I have already quoted Blanford, who says, "there is a sharp snort or cry of alarm caused by the presence of a tiger or panther, or by the sight of man." "Hawkeye," a well known and very observant sportsman with a large acquaintance with sport on the Nilgiris when those Hills were in their prime as a shooting ground, does not specifically allude to the question in his book, but in the chapter on sambur he says incidentally, "in some instances these deer may almost be considered exceedingly stupid ; and although so alive to danger in general, at times display an inattention to the laws of self-preservation that is quite surprising. On more than one occasion I have come suddenly on a hind returning from her night-tide grazing, in a neighbouring swamp, and the way in which the foolish creature would stand and stamp with her foot, staring at me all the time with both eyes and ears, was, to say the least, astonishing. During this scene I kept aiming at the animal, killing her over and

over again in my mind's eye, and thinking all the time what a chance it would be for a slaughterer! On one occasion, fancying a stag might be near at hand, and hoping to prevent the hind giving the bell of alarm, I tried many dodges to get her to move on—threw up my arms, took off and waved my hat, jumped and danced about. The deuce a bit! Instead of quietly making herself scarce, she came on towards me, not being thirty yards distant all the time. At last I had to run at her, and she let me come on some few paces before she bolted with one warning bell into the *shola* close by. I have but to remark that these instances have only occurred with females. Are we to put it down to the natural curiosity prevailing with the sex at large?"

From the above extract I think I am right in concluding that—"Hawkeye" holds that a sambur does bell at sight of a man—for he leaves it to be inferred that the hinds were in every case aware of the nature of the object at which they were staring. My own experience leads me unhesitatingly to the conclusion that a sambur, stag or hind, *never* bells or barks when it sees a man; but before giving that experience, I will quote another passage from "Hawkeye's" book which I think affords the true explanation for the strange conduct on the part of the hinds he observed—conduct to which every *shikari* must frequently have been a witness. In his chapter on the tiger he says:—"we know how proverbial the curiosity of deer is, and how, *when uncertain of the object before them*, they will at times advance towards it; in the sambur this is constantly the case, &c., &c." (The italics are mine.) Here "Hawkeye" strikes the right note: curiosity, and an inability to determine the exact nature of the

object that has attracted their attention, are the only reasons which prompt sambur to indulge in the antics which he describes. Had his hinds in any instance realised that the object at which they were staring was a man, they would have bolted precipitately without any "warning bell."

Now for my experience. I could quote several incidents which go to prove my view: perhaps the most striking was this. I was out at the S.W. angle of the Kundahs for a few days' shooting, and early one morning started on a prowl for sambur. It was still dark when I gained the summit of a lofty hill, which commanded a wide stretch of country. It was bitterly cold—so cold that we were glad to muffle our heads up in woollen wrappers. Over the valley below us hung a pall of dense mist; every little pool in the swamp which ran through the valley was coated with ice; while the grass in the hollows was white with hoar frost. As I sat on the open hilltop waiting for dawn, I had to rub my nose and ears to assure myself that they were still on my face. Selvia, the *shikari*, told me a lurid tale of how, years and years before, when the Kundahs were a veritable hunter's Arcadia, he had led a greenhorn up to a herd of bison feeding on the slopes above the heavy forest which lay in a dense black mass away to our right; how at the critical moment the sportsman had demanded a "B. and S." to steady his nerves; and how the pop of the cork had sent the herd in full flight to the low country, to the astonishment of the shooter, and the disgust of the worthy *shikari* himself! At last the first beams of the rising sun touched the hills in front of us, and through my glasses I made out the antlers of a stag showing clearly against the rosy flush in the sky, on

the summit of a hill which faced us. A broad valley lay between, and we found we should have to work round the head of this to get the wind right. The stalk occupied half an hour, so that by the time we reached the foot of the hill, the sun was well up. Carefully we climbed the steep ascent, only to find on reaching the top, that the stag had disappeared. His track was plain, and after following it a little way, we saw him feeding close to the edge of a large *shola* which ran up a hill to our left, attended by two hinds. And a lovely picture he made as we watched him from the shelter of a clump of rhododendrons, with the sunlight glinting down on his spreading head, tipped with ivory points. The ground between was quite open ; and Silvia and I decided that the only feasible plan was for me to go back, creep round into the valley, and then up the edge of the *shola* near which the stag was feeding, while he remained under the rhododendrons to watch the stag's movements. I reached the bottom of the cover, and Silvia signalled that the stag was still in the same position. The hill up which I had now to climb was covered with grass two feet high, and through this I wriggled as quietly as possible, though try as I might I could not stop the rustling altogether. I had advanced a hundred yards on all fours, when a ringing bell from the hill above made me stop short and brought my heart into my mouth. Peeping over the grass, I saw the heads of the two hinds, which had been concealed in a hollow, a little to the right of where the stag ought to be. They were gazing at me, all eyes and ears. "Goodbye to my chance at the stag," I thought ; but it was useless to remain where I was, so once more I began my sinuous progress. As I crept on the hinds kept up a series of bells ; but Silvia telegraphed that the stag

was still in front. Evidently the hinds could not make me out, and the hope flashed across me that after all I might get a shot at the stag. But just as I reached a bend in the *shola*, round which I knew the stag must be, the long grass stopped and gave place to the ordinary short grass which covers the Kundahs. Here was a dilemma. I could not cross the open; while the undergrowth at the edge of the cover was so thick that I should have alarmed the stag before I had gone ten paces had I attempted to force my way through it. Only one faint chance remained—a bolt round the curve of the *shola*. I was dressed in a brown khaki suit and cap, and while on all fours, almost hidden by the grass, the hinds had not been able to make me out clearly. In all probability they had taken me for a tiger. But no sooner did I raise myself preparatory to cutting round the corner, than I stood revealed as a man, pure and simple. Instantly the belling and stamping ceased, and I had a momentary glimpse of the hinds as they plunged into the cover. Once they realised I was a man, there was no hesitation, no “warning bell,” but precipitate flight. Many other instances, on much the same lines, have come under my notice, all pointing to the same conclusion—that a sambur stag or hind never bells at sight of a man.

I will not stop to tell how, by a piece of good luck, I bagged this stag after all, but will pass on to record the experience of a mighty hunter, the late Charles Havelock, on this vexed question. The adventure (which to my mind conclusively establishes my contention) occurred to him many years ago, and I give the account of it in his own graphic words, as he wrote it for the columns of a local paper, long since

extinct. "It was," he writes, "on a fine evening in April '74, when the early showers had made the fresh grass, so attractive to sambur and ibex, spring up on the burnt hillsides, that I determined on trying whether I could not bag a stag by moonlight. The spot I intended to visit was about two miles from my bungalow. The moon had just passed the full, so after dinner I lay down and had a nap, ordering my servant to call me at nine o'clock. Upon getting up at that hour, and fortifying the inner man with some strong coffee, I set out, followed by a cooly carrying my second rifle.

"On reaching the ground I saw no game, though I waited for some time. A few dark clouds floated across the moon's disc, and though partially obscuring it, there was still light enough to enable me to see distinctly for several hundred yards round. As the ground all about was covered with fresh sambur tracks, I felt sure some would come out of the forest to feed during the night, so I sat myself down behind a bush to watch. After I had been in this position for some time, my cooly pointed to an object on the ridge in front of me. At first this looked like a bush against the sky; but after watching it for some seconds through my glass, I saw it move, and was satisfied it was a sambur, which from its size I judged to be a large stag. As I knew the ground perfectly I could tell he was not within four hundred yards of me. The forest to my left would cover my approach for half that distance; but for the remainder there was not a bush nor any cover of which I could avail myself, so that I was doubtful as to whether I would get a shot. However, starting off, I and my man reached the furthest end of the forest, where, taking a peep, I could

see the sambur—a stag, as I had thought—was still in the same position, something over two hundred yards off; for daylight a very good shot, and I felt that if I could only see the sights of my rifle I would soon have finished the night's work. As it was, I was rather in a fix; for the stag could not fail to see me at once if I attempted to cross the level space of short grass in front of us. My experience of the habits of the sambur came to my aid in this extremity. I had on a reddish-brown suit, with hat of the same colour, which in the doubtful light might easily induce the stag to mistake me for his striped foe, the tiger. I therefore determined to 'act' the latter; and telling my Badaga to remain hidden and watch the *tamasha*, I crept forward on all fours, rifle in hand.

"I had not left the forest twenty yards, when a loud bell announced that not only was I seen, but that my stratagem had succeeded, for a sambur never barks on seeing a man. I knew now that the stag would not make for the forest, but expected he would keep walking round and round in the open, stamping on the ground and barking, as I have seen sambur do when a tiger was really stalking them. This stag did better still; he kept on walking deliberately towards me. I knew that if he discovered his error he would dash off into the forest in an instant, so, keeping my rifle as much out of sight as possible, I proceeded steadily, but very slowly, on towards the stag, who made such progress that by the time I had gone fifty yards from the forest he had come a hundred and fifty yards nearer his doom.

"There is a large sheet of flat rock on the ground of which I am writing, about forty yards broad. As I reached one edge of this, the stag just reached the

opposite one. His huge form, as he stood with mane and tail erect, presented a most weird appearance in the ghostly light, and against the surrounding gloom ; and I could distinctly see he was a monster stag.

“Cautiously half rising, I fired sharp, plunging a shell into his massive chest. He sank down at once ; and a fine specimen he was, with horns thirty-two inches long, very robust and wide spreading.”

I think this adventure affords evidence as conclusive as it is possible to obtain of the correctness of my view ; and the narrator, it will be observed, says point-blank that “a sambur never barks on seeing a man.” That was the result of his experience—more varied and more extensive probably than the experience of any other of the long line of sportsmen for which the Nilgiris have been famous. I once had a moonlight *rencontre* with a stag, on the grass ridge below Rockwood Peak, somewhat similar to the one above quoted ; but I will not multiply instances. For my own part, I am sure that when a sambur bells at a man, he has mistaken the identity of the object at which he is staring ; and that when he realises the object *is* a man, his one thought is flight, without any bell, warning or otherwise.

A year ago I had a delightful, and withal a most successful, trip after sambur in circumstances which would not usually have made for sport. I had lured two nieces and a lady friend down to my Estate by a vivid picture of the glories of Wynaad ; but, when giving the invitation, I certainly did not anticipate the upheaval that followed the intrusion of three girls into my hermit life ! With the suddenness of an earthquake my bachelor world fell in ruins about me. They began with what they called a “turn-out” of my

bungalow. The accumulated treasures of years ("rubbish," in their lingo) vanished before their tucked-up skirts and sleeves. Rapidly the pile grew on the open space in front of the bungalow until it topped the coffee bushes, while I stood by agape. "What a glorious bonfire it will make when we've done," was the only reply vouchsafed to my timid remonstrances. Room by room the turn-out proceeded, till the holy of holies, my bed room, was reached. Then verily the crack of doom sounded. Open flew the doors of my *almirahs*: out flew the heterogeneous collection of vestments, the agglomeration of sixteen years. The room was thick with flying garments, sorted by those six deft hands. On one side were placed in orderly array the clothes that "were good enough to keep"; on the other rose the stack which was eventually to gladden the hearts of all the poor in Ootacamund. Suit after suit, cherished relics of days at home, went to swell the pile; vainly I strove to rescue at least my well worn and well loved shooting clothes. The Amazons were deaf to all entreaty. And the sight at roll call next morning! My Maistries strutted in frock coats; my coolies in tweeds were the cynosure of the women; my cattleman was radiant in a blazer. But at last the work was done, and I could survey the *tout ensemble*. Could this clean, neat, orderly house be the higgledy-piggledy bungalow of my hermit years? Were these glorified domestics in spotless white the henchmen who had ministered to me in my Eveless Eden? Did they really produce the dainty meals which had superseded the eternal round of tough chicken and tougher goat? Were these dogs and horses, growing visibly sleeker every day, in sooth the dumb friends of my unregenerate days? Truly I

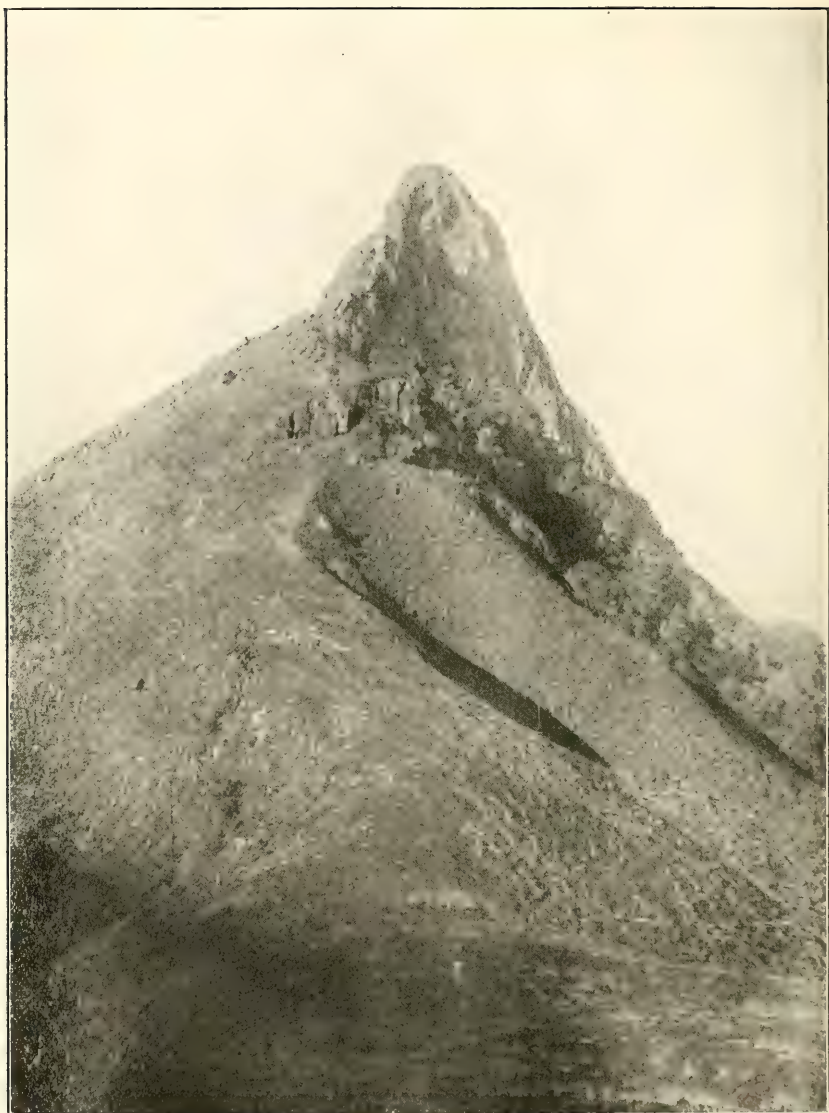
owed the girls a deep debt of gratitude for the metamorphosis they had wrought, and I would pay it. They had come for sport, and sport I would show them if by any means it was in my power.

Three days after their arrival a tiger mauled a cow while the herd were out grazing on the hill opposite to the bungalow. As he had not killed, it was a very slender chance, but I at once had a *machan* built in a large tree close by, and tied up a cow near it. Alive to the responsibility entailed by the care of the ladies, I had the *machan* made higher than usual, and at four that afternoon we were at our post. Aha! my tyrants, revenge is sweet, and my turn has come. My efforts to save my *lares et penates* only provoked a laugh, but the laugh is on my side now, I'm thinking. The only way into that *machan* is up that swaying bamboo ladder, and up that ladder willy nilly you must go. The more you look at it, the less you'll like it, so just take your courage in both hands and mount! R. went first, with eyes tightly shut, and feeling her way step by step, while I followed close behind to place her feet securely on each rung. The journey was safely accomplished at last, and she subsided with a sigh of relief, and the muttered question, "How on earth am I going to get down again?" Miss C. came next, and though she would insist on adding to her terrors by looking down at each step, made a fair job of it. D. laughed all my offers of assistance to scorn, and came up like an acrobat. We watched in unaccustomed silence till it was dark; but as I feared, no tiger showed. He was, we knew, in the large jungle below us, and once or twice the cow became restless, staring at the jungle-edge and tugging at the rope round her horns. But our vigil was fruitless, and our only reward a wonderful

sunset, as the sun like a ball of blood dipped slowly behind the giant Vellarimallais. The silent watch in our leafy perch ; the tense straining of eye and ear, in the knowledge that the tiger was close at hand, as the scented darkness shut slowly down on us, was a new experience for the girls, and I think repaid them in some degree for the non-appearance of the tiger.

A couple of days afterwards a leopard took a calf from the cattle-shed near the bungalow, and again we sat up in a *machan* over the kill. But Spots had eaten nearly the whole carcase at his first meal, and the remnants did not tempt him back. I felt that if I was to redeem my promise of sport, we should have to go farther afield, and so—not without misgivings—I proposed a week in camp. The girls jumped at the idea, and all next day was spent in making preparations, and getting the *saman* together. We had arranged to send off the coolies with the tents and supplies early the following morning ; but it was noon before the long procession started for the tramp to our objective, Rockwood Peak. We followed, two of the girls on ponies, the third in a chair carried by four men. But the narrow cattle track, which led straight up the steep hill through grass five feet high, was so slippery and difficult, that very soon we had to send chair and ponies back, and finish the climb on foot. As the girls were not used to such rough mountaineering, we made slow progress and it took us an hour to reach the grassy ridge below Needlerock, where we sat down to rest.

This part of Wynaad is a country of magnificent views, but few match that from the ridge of which I am writing. This ridge, starting from Rockwood



NEEDLEROCK.

Photo. by the Author

Peak, extends—like the spiny back of a gigantic saurian—to Hadiabetta at the edge of the Wynaad Ghats, and forms the watershed of the district. At the point at which we struck it, it is a tiny table land, ten yards broad and fifty long. As we sat facing north, directly over us and to our left towered the tremendous mass of rock tapering to a point which gives Needlerock its name. To our right the ridge sloped steeply upwards, to end in Rockwood Peak. Northwards, the ground fell away in forest-clad waves to the Rockwood valley, the estate buildings specks of white set in the dense green, and the iron roof of the bungalow sparkling like glass in the afternoon sun. Southwards, the country dropped down in precipitous grass slopes, with a *shola* in every hollow, to the Devala valley, the great Coast road showing at intervals like a brown ribbon; the view on the west being closed by the low hills of Devala with the mighty buttress of the Karkur Pass rising behind them, and on the east by the rocky bluff of Gudalur Mallai and the distant Nilgiris. At the foot of these hills the Oucherlony Valley spread out, one unbroken forest of silver oak from this distance, punctuated by white dots which marked the buildings on the estates; while on the other side of the bluff lay the town of Gudalur in a white blur. Farther still, so far that they seemed merely a purple cloud on the eastern horizon, we could see the Billigarungans—those Mysore hills which for so long were the home of G. P. Sanderson. And on all and over all shone the January sun, bathing the whole wonderful picture in shimmering gold.

From this point our track ran round behind Rockwood Peak; but though comparatively level, the ground fell away so abruptly on one side, and the grass

was so slippery, that we resembled flies crawling on the wall of a house, and great caution was necessary. We did not reach our camp below Rockwood Peak till 4 P.M., and as I had to get the tents pitched and the camp put in order before dark, there was no time to spend in selecting a site. The coolies had put all the *saman* down on the grass ridge just under the Peak, and as the ground here was level, I set to work at once and by nightfall had things ship-shape. But never shall I forget that night! Our tents were pitched on the knife edge running out from the Peak, and on both sides the ground fell away precipitously, to the estate on one side and the Nellakota valley on the other. Just after we had turned in, the wind, which had been blowing strongly from the north-east all day, rose to a perfect hurricane, blowing in gusts which made the tents rock and sway so dangerously, that every moment I expected the whole "contraption" to collapse. The girls were housed in a big hill tent, which stood the strain better; but all night long I lay awake in the shooting *pal*, watching the rocking canvas which flapped with a noise like a succession of pistol shots, and waiting for the catastrophe. But fortunately some of the pegs held, and with the dawn the wind dropped.

With the first pink flush over the Nilgiris, we were out, and I found the girls had fared no better than myself in the matter of rest. We climbed up to a favourite eyrie of mine under the rocky helmet which crowns Rockwood Peak, and which on this face is so curiously twin to Needlerock. From here we looked over the Rockwood valley, my sambur preserve. As the sun rose, we made out a dozen sambur feeding in groups below us, but though we watched till nine o'clock, we saw nothing worth shooting. So back to

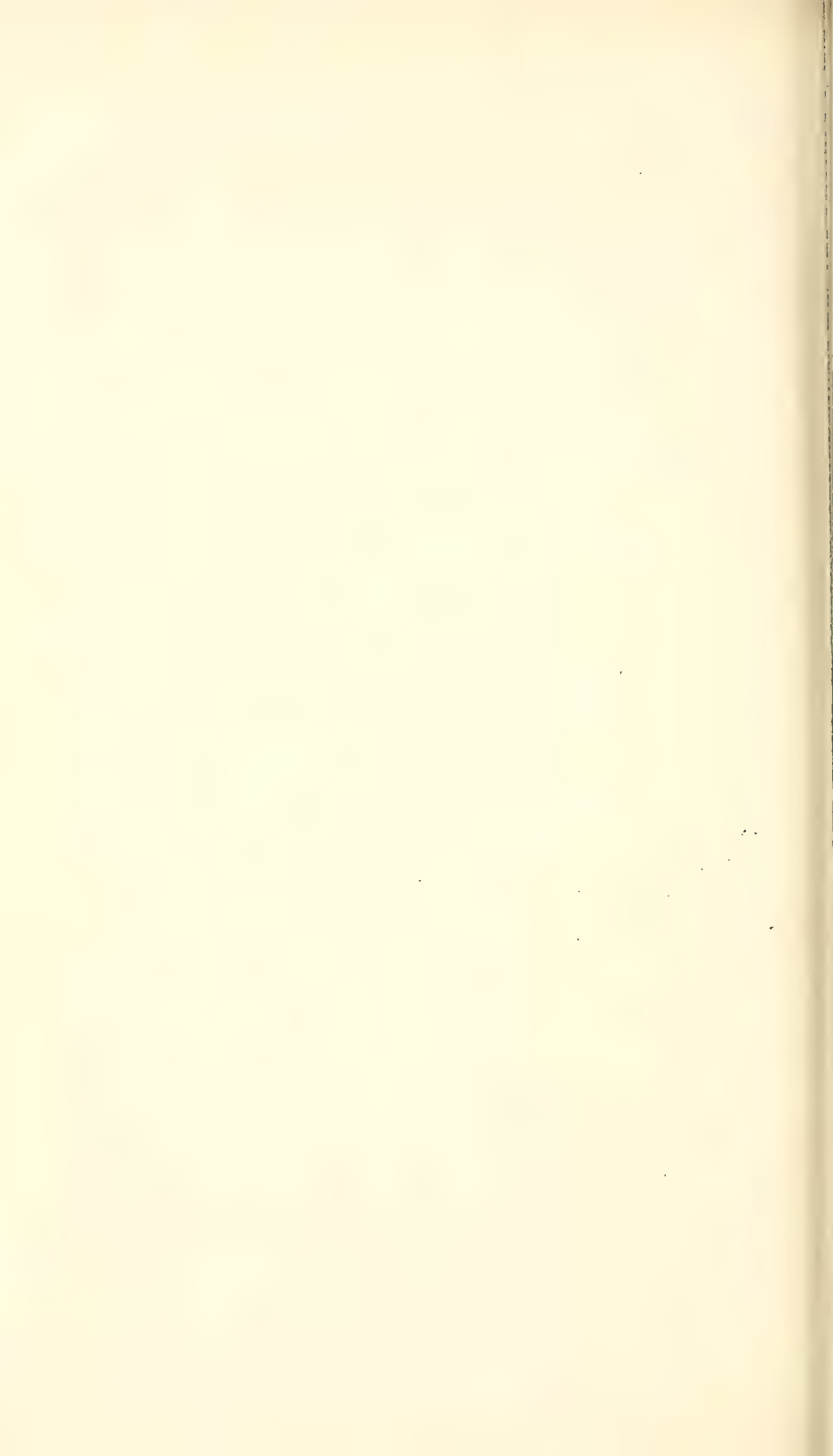
camp, where my first duty was to clear and level a space in the jungle a short way down on the Rockwood side of the hill, and to shift the tents to this site. Here, sheltered by the trees and the upward fold of the ground, we were snug for the rest of the trip, though every night the wind howled and roared above us. In the afternoon we went back towards Needle-rock, but though sambur were numerous, again we did not see a stag worth shooting. Just at dusk, as we were within a few yards of the tents, I saw a fine stag coming quickly down the steep hill facing the camp to the right. It was fast getting dark, and to reach him meant a long detour; but I started with Juddia at once, while the girls sat down on the ridge to watch the stalk. I ran along an old sambur track in the hope of cutting him off before he reached the *shola* for which he appeared to be making, but he topped the hill in front, and disappeared over the crest, 500 yards ahead of me. I raced for the summit, and followed cautiously down the opposite slope, which was very steep; and at last I made him out at the edge of the cover. I dropped into the grass, and pulled Juddia down with me. In the gloom the stag was little more than a blur against the background of trees, and only the occasional movement of his head made his position distinguishable. I could hardly see the sights of my rifle; but under that battery of bright eyes, failure was unthinkable. At the shot he rolled down the steep hillside, and when we reached him, where he had been brought up by a tree at the edge of the *shola*, he was quite dead. The chorus of congratulation, with which the excited girls met me on my return after a stiff climb, I accepted of course as my due: not for worlds would I have confessed the

qualms I had suffered at fear of a miss in the semi-darkness! Next day we had the stag carried up to camp. He had a good head of thirty-five inches, though its symmetry was marred by the absence of one surroyal on the left antler.

Next morning we were out again at dawn, and followed the path round Rockwood Peak. I had sent Juddia on ahead to try to mark down a stag; and we had not gone very far from camp when we saw him on the path beckoning to us to make haste. He told us that two stags were feeding just round the curve of the hill. At this point a mass of rock with a flat top jutted out from the hillside; and creeping to the edge I saw the stags, both fine ones, in a cup below, not a hundred yards away, and quite unconscious of our proximity. Here was a grand chance of giving the girls a sight of a sambur stag in all his native majesty, so I told them to creep forward with the utmost caution and peep over the cliff. R. and D. obeyed my instructions to the letter; but Miss C. (whose habitual impatience of advice tendered by a mere man would have done credit to a militant suffragette) scorned concealment, with the result that next moment the stags were flying in terror from this petticoat intrusion, and they vanished over the crest of the hill before I could get a shot. The evening stalk was more successful. We were coming back to camp, when far down in the valley below I saw a stag feeding, and the glasses showed me he was a good one. I started after him, while the girls sat down on the ridge to watch the performance. I had marked the stag's position by a single dry tree, and when I got to within two hundred yards of this, I saw him just under it. My bullet dropped him in his tracks; when, at sound of the shot,



IN CAMP.



a magnificent stag bounded like a Jack-in-the-box out of a hollow beyond the tree, and was over the crest of the hill before I could ram another cartridge into the single rifle I was using. It was real hard luck that I had not seen both stags from above, for even the fleeting glimpse I had of his head showed me that the second was a perfect beauty. The horns of the one I bagged measured thirty-three inches.

Early the following morning we went to a look-out not far from camp, which commanded the eastern side of Rockwood valley. Three hinds and a brocket fed to within fifty yards of us, and several more sambur were visible, but no stag with a warrantable head. About nine o'clock D. and Miss C. went back to see about breakfast, and R. and I were just preparing to follow, when a tiger walked out of a *shola* six hundred yards below us, leisurely crossed a long grass hill, and entered another cover on the other side of the hill. We had a good view of him as he sauntered along in the sun, and that R. should have seen a tiger on his native heath was a quite unexpected stroke of fortune, seeing how seldom it is that one is encountered in the open in this land of continuous jungle. The disappointment of the others on having missed the sight, may be imagined. The *shola* was far too large to beat, so I sent for a calf; but though this was tied up near the cover every day for the rest of our stay in camp, the tiger did not kill, and we saw no more of him. Our afternoon outing was a blank; but while we were sitting out in the moonlight waiting for dinner, we were serenaded by a leopard who kept wandering round the tents, attracted probably by the smell of meat, as the coolies had cut up both stags on the site of our first camp close by.

We were out again at dawn, and went back towards Needlerock. While we sat watching behind a pile of rocks which commanded the whole valley, a stag crossed a small swamp far below us and entered a *shola* which bordered it. This cover was not extensive, and in the hope that the stag would not harbour in it, I made my way as fast as possible down the precipitous hill and took up a post at the head of the *shola*. I waited for an hour, but the stag did not show, so I sent Juddia down to the swamp with instructions to walk through the *shola* towards me. Hardly had he entered it, when the stag and a hind broke and raced along the hillside below me. My bullet caught him fair behind the shoulder, and he tumbled headlong into a detached clump of trees just at the head of the main cover. Instantly, as if propelled by a hidden spring, out of this clump bounced a grand stag, and disappeared over the summit of the hill before I could reload my single rifle. If not my friend of the evening before, he was his twin brother, and once again I had been cruelly sold. He was not more than a hundred yards away, and I judged him to be a thirty-eight incher at least, with a very massive head. The dead stag carried thirty-three inch horns.

During the remainder of our trip we saw several more stags with heads of about the same size ; but as I had redeemed my promise of sport, I did not go after them. Morning and evening we prowled round the big stag's haunt, but we did not see him again. His two escapes had evidently made him cautious, and thereafter he must have fed entirely at night. The girls returned to the estate thoroughly pleased with their outing. What did it matter that, having to send a mile for water, we had been limited to a basinful

each per day for our ablutions? What did it matter that our kitchen was merely a circle of stones set under a tree, when our "boy" had produced a daintily cooked three course dinner every day under these primitive conditions, with that wonderful faculty for evolving a square meal at all times and in all places which seems the special gift of the native servant? We had come for sport, and had seen a tiger and at least fifteen stags, and had bagged three good ones. Our trophies, beautifully set up by Rowland Ward, now adorn the staircase of R.'s flat in Kensington, and often, I hope, serve to remind her of our trip to Rockwood Peak.

THE SPOTTED DEER

Scientific name.—*Cervus axis*.

Tamil name.—*Púli mán*.

Kanarese name.—*Sarga*.

Kurumba name.—*Sarga*.

Nayaka name.—*Sarga*.

THE MUNTJAC

Scientific name.—*Cervulus muntjac*.

Tamil name.—*Kat' ādu*.

Kanarese name.—*Kard' kuri*.

Kurumba name.—*Kard' kuri*.

Nayaka name.—*Kard' kuri*.

THE MOUSE DEER

Scientific name.—*Tragulus meminna*.



Photo. by Gambier Bolton

THE SPOTTED DEER

THE SPOTTED DEER

Where the bamboo-rears its graceful spires,
Where the tree ferns cluster in every dell,
Where the peacock spreads his lambent fires,
It is there the dappled deer loves to dwell.

Wynaad Idylls.

IF the sambur, by reason of his size and majestic appearance, is the king of Indian Cervidæ, the axis, in virtue of his exquisite grace and symmetry, is the Adonis of the deer tribe. In beauty of form and colouring his only rival amongst Indian game animals is the black buck (*Antilope cervicapra*). The ground colour of his glossy coat, a rufous fawn, is somewhat variable, the shade being lighter in some specimens than in others. The throat, under part of the body, inside of limbs, and under surface of tail, are white. A dorsal stripe, considerably darker than the ground colour, runs from the nape of the neck to the end of the tail. The sides are covered with large rounded white spots, irregularly placed in some specimens, in others showing a tendency to arrange themselves in lines below the dorsal stripe and above the white of the belly. The head is unspotted, and the face is darker than any other part of the body. The ears, which are small and narrow compared with those of other deer, are dark fawn outside and white within. Unlike the sambur, the stag has no mane, and the absence of any long or shaggy hair is in perfect harmony with his

uniformly graceful appearance. The coloration of the hind is very similar to that of the stag. Fawns of both sexes are spotted at birth ; and retain the spots throughout their lives.

As with the sambur, the horns of the spotted stag are three-tined, but in the latter the form is more lyrate. The comparatively long brow tine meets the beam at almost a right angle, while the outer surroyal is always much longer than the inner. Often there are snags at or near the junction of the brow tine with the beam. In keeping with the build of the spotted stag, the horns are light and graceful, lacking the beading so conspicuous in the sambur. The longest horns of which I can find a record are the pair mentioned by Blanford, measuring thirty-eight and three-quarter inches round the outside curve, five and three-quarter inches in circumference above the burr, and four inches at mid-beam. My own best pair measure thirty-two inches round the curve, four and three-quarter inches above the burr, and have a spread of twenty-five inches ; but these dimensions have been far exceeded in other South Indian heads.

It would seem to be a generally accepted view amongst naturalists that the spotted deer of Southern India is a smaller animal than that inhabiting the North-West and Central Provinces, and the Eastern Ghats. Hodgson suggested that the South Indian deer should be named *Axis minor*, and Jerdon inclined to the opinion that this deer was a separate species. Blanford gives the height of stags in North and Central India as from thirty-six to thirty-eight inches at the shoulder, while Jerdon makes the corresponding height for South Indian stags thirty to thirty-four inches. But there can, I think, be no doubt that

Jerdon's figures are under the mark. I have shot a number of stags in Wynaad and below the Ghats, several of which I measured. The smallest of these stood nearly thirty-three inches at the shoulder, the largest thirty-six inches ; while I feel sure that of the unmeasured specimens not one was as low as thirty inches. The stags I did measure were not selected for their superior size or for any other reason : that I did not take measurements in every instance was due simply to the fact that sometimes I was without a tape. If the opinion that the South Indian axis is considerably smaller than his Northern congener rests solely on Jerdon's statement of height, that opinion is fallacious. And in any event, the variation in height, if it exists, is so trifling that the North and South Indian forms cannot be regarded as anything more than local varieties of the same species.

The spotted deer is not found on the Nilgiris, the climate and country being so different from his usual habitat. On the Wynaad plateau his range is three thousand feet and under, which is only another way of saying that he confines himself to bamboo jungle. It is curious how sharply the dividing line between the range of the sambur and that of the axis is marked in Wynaad. The estate on which I live has an elevation of three thousand two hundred feet at the extreme foot of the valley in which it lies, and runs gradually up to five thousand feet, the height of Rockwood Peak. The jungle in the lower portion consists largely of bamboo ; but from about three thousand four hundred feet upwards bamboo is conspicuous by its absence, and the forest is composed entirely of large timber. In the lower valley—the bamboo zone—spotted deer are fairly numerous ; but

above the bamboo line they are unknown. In this upper portion, on the other hand, sambur are extremely plentiful, while to see them in the bamboo is a very rare occurrence. I think I can safely say they never enter the lower jungle except when driven down by the advent of a pack of wild dogs in their preserve. Five miles away as the crow flies I have another estate with an elevation of about three thousand feet, where the jungle is all bamboo. Here spotted deer are common, but I have never yet seen a sambur on the property. Light open forest on the banks of streams, interspersed with glades of short grass, is the country the dappled deer love; and hence they abound in the jungles at the foot of the northern face of the Nilgiri plateau, and below the Western Ghats in Malabar, where their special taste in the matter of habitat is suited to a nicety.

The spotted deer is the most gregarious of any Indian species, and the stags never separate from the herds, which, where free from persecution, are very large. They are even less impatient of man's proximity than the sambur, and frequent the borders of cultivation in spite of the precautions taken by the *ryots* to drive them away. They retire to cover later than the sambur, and come out to feed again earlier in the afternoon; while, lying up as they do in open forest, they can be met with at all hours of the day by the sportsman wandering in their haunts.

In South India the rutting season of the axis corresponds, broadly speaking, with that of the sambur—from October to April; but as the stags keep with the hinds throughout the year, and as their horns are shed very irregularly, young fawns can

be seen with the herds at all seasons. But the majority are dropped in the late spring, and just before the setting in of the south-west monsoon.

The call of the spotted deer is a short bark, sharper and much less sonorous than the bell of the sambur. Blanford notes that this deer has also "a shrill alarm cry"; but when startled I have never heard it emit any sound but a short "kop, kop."

On several occasions prospecting work has taken me to a place at the foot of the hills, where the whole country is alive with spotted deer. In the course of an afternoon ramble I have come across herd after herd, the members of which together must have numbered fifty at least. In front of the "shanty" which affords the only accommodation for the traveller, lies a long stretch of rice fields, and the young rice formed such an irresistible attraction to the deer, that in the vicinity of the paddy swamps they swarmed. Pigs, and even elephants, paid regular nocturnal visits to these fields, and the watch-houses of the Paniyans—little platforms on four upright poles—were scattered all over the country. Often when out before sunrise I have been amused at the efforts of the watchmen to drive the marauding deer away. A Paniyan would wake to see a herd busy nibbling the rice shoots, which at that stage of their growth are as tender as grass after a burn, close to his watch tower, and banging his tom-tom would curse the robbers who were spoiling his crop. With a great show of fright the deer would bound away into the jungle surrounding the rice field, only to come tripping daintily back in a different direction after the Paniyan's wrath had subsided. More cursing from another quarter, and

another scamper for the jungle; and so the game would go on till the sun rose.

The work on which I was engaged took me constantly to a large stream in the jungle, some three miles from the rest-house, and on my way thither I never failed to startle a herd or two from their morning siesta, when they would vanish like dappled ghosts between the bamboo clumps. Had I been bent on slaughter, I could have shot two or three stags a day with ease. One morning I took my way to the stream, and worked hard with my men till noon. My inner man warning me that it was breakfast time, I picked up the tiffin basket and wandered away to find a shady place for my meal. The stream here ran round in a horseshoe, and I cut across the bend till I met the water again, three hundred yards further on. At this point the bank was high, and overhung the stream, and I sat down under a drooping tree which grew just at the edge. From my perch I looked down on a wide pool, and across at a shelving bank of shingle, above which grew the jungle, clumps of feathery bamboos with trees in between. I finished breakfast, and lulled by the murmur of the stream I was smoking my pipe and indulging in a day dream, when a movement under a tree across the water, and some distance down to my left, caught my eye. My glasses were in the basket, and one glance through these showed me that the movement was caused by the flicker of a spotted stag's ears, and such a stag! He was lying tail on to me, and I could see the graceful sweep of his horns as they towered above him. He was not more than 250 yards away, and why he had not heard me was a puzzle. However, there he lay,

blissfully unconscious of my proximity, and I crept back and rejoined my men. I had my Paradox and my '500 Express with me, and giving the former to Chic Mara, who was with me on this trip, I told him what I had seen. The head Paniyan was anxious to come too, and I had been told by the Rajah that he was a noted *shikari* who always acted as cicerone to sportsmen shooting in these jungles ; but I warned him and the rest not to move till they heard me fire or till I sent back for them. Then Chic Mara and I crossed to the river bank in a line which I judged would take us exactly opposite to the stag. Arrived within twenty yards of the river, I left Chic Mara behind and crawled along to the edge. The stag was still in the same position, and not a hundred yards away ; but I had only the neck and head to aim at as the undergrowth covered his body, and I hardly dared to risk the shot. Just then a dry bamboo snapped behind me, and the stag jumped to his feet. In a second he would have been off, but that second's hesitation gave me my chance and cost the stag his life. As he stood gazing in my direction, my bullet took him in the chest. He turned, staggered forward a pace or two, and dropped dead. I turned too, and gave my henchman a piece of my mind, when there stood the Paniyan, grinning all over his face with joy at the prospect of meat. Chic Mara's indignation knew no bounds. "*I* do such a fool's trick as to tread on a dry stick?" he asked ; "surely the *dhoray* knows me too well for that. It was this buffalo here, who was told to stay behind." I was determined the punishment should fit the crime, so I had the stag carried to the rest-house, and that evening saw the meat divided between my followers,

the offending Paniyan being sent empty away. This was the best spotted stag I have ever had the luck to bag, his horns measured

					inches.
Round curve	...	...	...	...	32
Girth above burr	...	...	...	...	4 $\frac{3}{4}$
Spread	...	...	...	...	25

THE MUNTJAC OR BARKING DEER

THE name vulgarly given to the muntjac, rib-faced-, or barking deer in Southern India is perhaps the most glaring misnomer current in a land where most animals are called by wrong names. He is universally known as the "jungle sheep," whereas he has no more relation to the sheep than to the elephant, being a true deer. So far as India is concerned, he is the sole representative of the genus—*Cervulus*—in which he is placed, a genus which differs from *Cervus* chiefly in the following respects :—

Cervulus, short horns on long pedicels. Phalanges to lateral digits absent.

Cervus, long horns on short pedicels. Phalanges to lateral digits present.

The muntjac is found throughout India, Burma, and Ceylon, his habitat being similar to, and therefore roughly co-terminous with, that of the sambur, viz., on all jungle-clad hills. His colour is a rich chestnut red, deeper on the back, face, and legs. The lower surface of the body is mostly white, from the chin to the end of the tail. A black line runs along the inside of the pedicels and facial ribs. In a skull the latter will be seen to be continuations of the pedicels, and they meet at an acute angle above the snout. These



Photo. by A. T. S. J. Penn, Ootacamund

THE MUNTJAC

bony ridges on the face, with their distinct black colouring, give this little deer a very curious appearance.

The horns are two-tined, the beam not being bifurcated at the tip as in other deer. The brow tine is very short, and not infrequently the beam carries sports or snags. In one head I shot, there is a sport midway between brow-tine and tip of horn which is considerably longer than the former. The pedicels diverge throughout their length : from their summits the horns rise almost perpendicularly, while the tips curve rapidly inward, backward, and downward. The beam is not round as in the sambur and spotted deer, but has a knife-edge in front and behind. This peculiarity is more marked in mature than in young bucks. In the female a tuft of hair replaces the horn. The buck sheds his horns in April and May, and is in hard horn again by August.

Burke writes:—"The best Indian specimen of which we have particulars is nine inches (pedicel four inches, horn five inches) got in the Garo Hills in 1881." My best head measures, pedicel three and three-quarter inches, horn six and a half inches, total length ten and a quarter inches, which far exceeds the above, and would appear to be a record for India. These horns are also much thicker than any others I have seen or heard of, and the knife-edge is very marked.

The muntjac is sometimes found singly, more often in pairs, occasionally in threes, and I once saw five feeding together—the "herd" on this occasion consisting of three does and two bucks, apparently all full grown. It is a most wary little animal, and with stern up and head down makes its way through even the thickest cover with extraordinary rapidity. When

disturbed in the open it races away at a pace which, for its size, I judge to be much faster than that of any other deer. If the sportsman is close enough, he will notice a clicking sound as the muntjac bounds away. Various writers have put forward different theories as to how the sound is produced; but "Hawkeye" has noted that the long canine teeth are not firmly set in the jaw, and I agree with him that the rattle is caused by the movement of these teeth. The canines furnish the male with a formidable weapon of defence, which he uses with great effect when collared by dogs. On one occasion a *shikari* of mine was badly bitten when he seized a wounded buck which had crept into a thicket of thorns. In the female the canines are shorter, but she can also inflict a nasty bite.

When feeding, the muntjac has a jaunty gait, lifting each foot high at every step, and bringing it down as if he were "treading on eggs." In all respects he is a beautiful little animal.

The call of the muntjac is surprisingly loud for an animal of his small size. It is a short roar, and sometimes this barking is maintained for a long time. Frequently, when I have disturbed a muntjac, he has rushed away with a short bark of alarm, and after going a little distance has kept up a series of loud barks for a quarter of an hour. On none of these occasions do I think the muntjac was aware of my identity; and in my view no deer barks at a man. His call at sight or smell of a tiger is different from his ordinary roar, consisting of a number of very sharp barks in rapid succession.

The period of gestation is about six months, and as most fawns are dropped in April and May, the rutting season must be in November or December. But I



THE MOUSE DEER

Drawn by J. Macfarlane

have seen does with young fawns at foot all through the year; and as I have several times noticed two fawns of apparently equal age running with the mother, two young at a birth cannot be uncommon.

Both on the Nilgiris and in Wynaad the muntjac is very common. On the higher plateau he is usually bagged with a charge of shot by sportsmen beating for small game.¹ But the proper way to shoot him is by stalking. Owing to his wariness it calls for the display of considerable skill to get within shooting distance, while he offers such a small mark that to bag him with a bullet needs good shooting. In Wynaad he feeds at all hours of the day at the edge of some cover into which he can retreat instantaneously, and stalking him has often afforded me very pretty sport. The feat of which I am proudest, was a right and left at a pair of muntjac with my Express, as they raced across a hillside when I had crept up to seventy yards.

THE MOUSE DEER

THIS little animal, not more than a foot high at the shoulder, is not found on the Nilgiri plateau, but is common in the heavy forest on the Wynaad Ghats. Blanford states that he is found in Southern India "in forest at elevations below 2000 feet"; but he has a much higher range in Wynaad, and I have seen him at 4,000 feet. Though a few are found in the lighter deciduous jungle lying between the crest of the Ghats and the foot of the Nilgiris, the true habitat of the *Tragulus* is the dense forest which clothes the western slopes of the Wynaad Ghats.

¹ The shooting of muntjac with shot has lately been prohibited.

The upper parts of the body are brown, but there is a great variation in the shade, some specimens being much lighter than others. The under parts are white. On the throat are three white stripes. The brown body hairs have black tips, with a light yellow ring near the ends. On the sides are oblong spots and bands.

The call of the mouse deer somewhat resembles the bleat of a young kid. I have heard it utter this when caught, and a tame one I kept for some time used to bleat in the same way as it followed me about.

Tickell says, "the male keeps with the female during the rutting season, about June or July, at other times they live solitary"; but I have seen buck and doe together at any time between October and June. And as I have caught young mouse deer both in November and April, I do not think there is a regular breeding season.

Frequently, when felling heavy Ghat jungle, my coolies have caught mouse deer by surrounding them, and I regret to say they killed many more than they caught. After capture it is a most difficult matter to rear a chevrotain, especially if full grown; but if he can be got to survive the first fortnight, he will flourish in captivity, is easily tamed, and makes a very pretty and interesting pet.

THE WILD DOG

Scientific name.—*Cyon dukhunensis*.
(Properly *dekkanensis*.)

Tamil name.—*Kat' nai*.

Kanarese name.—*Kad' nai*.

Kurumba name.—*Kad' nai*.

Nayaka name.—*Kad' nai*.

SMALL GAME



THE WILD DOG

Drawn by J. Macfarlane

THE WILD DOG

. "The wild dog
Doth flesh his tooth in every innocent."

As in the case of so many animals in South India, the name applied to this one is a misnomer. He differs from all members of the genus *Canis* in many important respects: the dentition is different (four molars in the lower jaw against six in the true dog), the mammæ are more numerous (generally fourteen against ten), and he has long hair between the pads of his feet; while his intractable disposition shows that he has had no share in the evolution of the domestic dog. The latter is far more nearly allied to the jackal than to the wild dog.

This pest, which unfortunately is very numerous in Wynaad, is rather a handsome animal. His colour is a bright rufous, lighter on the under parts than the upper, and he carries a thick brush with a black tip, which gives him a jaunty appearance. I must also do him the justice to say he has a bright, intelligent look, but none the less he has "knave" writ large on his countenance; while his slouching gait proclaims him the arrant poacher he is. No other carnivorous animal does a tithe of the damage in a game country for which the wild dog is responsible. He hunts by day, running mute, in a pack of from three to thirty; and once on the track of a deer that deer's fate is sealed, for he is

an untiring, implacable foe. A pack will pull down a stag on occasion; but their usual quarry is a fawn or gravid hind, and hence it is that they are such an incalculable nuisance in a game country. Moreover, the havoc they do is not confined to the game they kill, for all deer will at once leave a tract of country in which wild dogs make their appearance. Frequently I have seen the sambur in my preserve migrating because a pack was in the vicinity.

The wild dog pulls down his quarry by tearing open the stomach, his sharp teeth easily penetrating the stretched skin when the victim is in flight. I have several times come up with the brutes directly they had pulled down a sambur, and before they had begun their meal; and on all such occasions the entrails were protruding.

Most writers state that the wild dog is shy of man, but my experience is just the reverse. In my view he is endowed with phenomenal impudence. Meet a jackal, and even if he does not move very far out of your road, he will at least pay you the compliment of recognising that "on earth there is nothing great but man" by keeping a wary eye on your movements. But meet a wild dog, as I have met him many times. He slouches a pace or two off the path, and then (if he does not add the crowning insult of showing you his stern) as you pass he will deliberately look the other way, as who should say, "I'm bound to get out of the way of a hulking brute like you, but don't lay the flattering unction to your soul that I'm frightened, for I don't care a d—n for you." I have often been insulted in this fashion by Mr. Cyon: it is only when I have come upon him suddenly that he has evinced the least hurry in getting out of my way.

The belief is current amongst natives that wild dogs will hunt down and kill a tiger ; and some sporting writers have given credence to this legend. Personally I regard it as pure fiction. In every account I have read of a tiger having been killed by wild dogs, the evidence has rested on statements made by natives, and everyone knows how unreliable such statements invariably are. I have seen a pack of four wild dogs run from a small fox-terrier who went for them, and not for a moment do I believe they would face a tiger. One writer, as proof of the belief, says that wild dogs have been seen following the track of a tiger. I have no doubt that in such instances Lazarus was merely waiting for the crumbs from Dives' table.

It has fallen to me, I am glad to say, to account for a good many wild dogs in Wynaad. A description of how they were bagged would scarcely make interesting reading ; but I will give two instances in support of my contention that the wild dog is an impudent rascal, with little or no fear of man. Very early one morning I climbed to the top of Rockwood Peak, in the hope of a shot at a stag. I reached the summit just as day broke, and sat down to search the large extent of country I commanded from my lofty perch. Looking over the precipice to my left, I saw a number of small objects running about on a grass hill above a small *shola* ; and with my glass I made them out to be wild dogs. To get to them I had to come down the bare face of the hill in full view of the dogs, but they took no notice of my approach. I walked to within fifty yards of them before they began to decamp, and then the pack, which numbered sixteen, only moved a short way up the hill, where they stood at gaze. I got two with a right and left from my Express, and at

the sound of the shots the rest trotted away in a line. Ramming in two more cartridges, I bowled over another and missed the fourth. This slaughter set them going in earnest, and they disappeared over the crest of the hill before I could fire again. At the edge of the *shola* I found a freshly killed hind.

On another occasion I was sitting at my writing table about 10 A.M., when I heard a commotion just outside, and something rushed past the open door, but so quickly that I could not see what it was. Running to the door, I saw a sambur fawn careering down the road with four wild dogs in full chase. It only took me a few moments to snatch up a rifle and follow. The track turned off into the coffee, and I carried it down to my store, when I saw the dogs near the bridge on the public road just below the building. They allowed me to come within thirty yards before they showed any disposition to move, and I knocked two over, whereupon the other two jumped up the bank into the coffee. The fawn was lying dead in the stream with his stomach ripped open. I was examining the dead dogs, when a cooly came along the road, and he told me the brace who had bolted were sitting on the road bank close by. Round a bend I came up with them, and bagged a third. This last was a bitch, and it was with great satisfaction that I saw four embryo pups cut out of her.

The tiger is a gentleman. He takes toll of my sambur and cattle in a gentlemanly way, and I do not grudge him his share, feeling amply compensated if at rare intervals I get his striped hide in payment. Even with the leopard, though he has robbed me of many a good dog and plays havoc with my calves, I have no quarrel. But the wild dog is an impudent,

insatiable, bloodthirsty poacher, who kills and spares not. He has not one redeeming point in his despicable character, and personally I would welcome his extermination.

SMALL GAME

Where lonely Woodcocks haunt the wat'ry glade.—*Pope.*

The Nilgiris, owing to their charming climate and the variety of small game shooting they afford, have always been a favourite field for the devotees of the "scatter gun." A day's snipe shooting on the plains entails a fog in the blazing sun: on the hills it means merely a delightful outing. And to add to its charm, there is always the chance of picking up a woodcock or two in the little *sholas* that stand at the head of every swamp. By far the best woodcock ground is on the Kundahs; but for several years the beating of *sholas* on the Kundahs has been prohibited, which has indirectly made woodcock-shooting "tabu" on that range. With the object of the rule against beating—to protect and preserve the large game animals by preventing any disturbance of the cover in which they harbour—no one could have greater sympathy than myself; but I question whether the prohibition does not go too far. Beating with dogs should, obviously, be forbidden absolutely; but the small *sholas* bordering the swamps (in which alone woodcock are found) are not usually those in which sambur lie up. And even if they did occasionally hold sambur, no great harm would be done by a few beaters going through them: the deer would merely retreat to the next cover. Certainly no greater dis-

turbance would be caused by *silent* beats than now arises from sportsmen being allowed to "stalk" sambur with a retinue of *shikaris* and followers. To *preserve* woodcock does not, naturally, form any part of the scheme of the Game Association, these being migratory birds : and it seems rather arbitrary practically to put a veto on cock shooting on the Kundahs by the enforcement of a rule which might be relaxed a little in the way I have indicated without detriment to the object it was framed to achieve.

Some years ago, when many elderly but keen sportsmen were resident on the hills, to bag the first cock was reckoned the blue riband of Nilgiri sport ; and great was the rivalry between them for the honour. But this Fraternity of Old Gunners (I use the title with the greatest respect) gradually dwindled : some went home for good, some sleep in the old churchyard : and the bagging of the first cock is no longer heralded by a triumphal announcement in the local paper that "the first woodcock of the season fell to the unerring gun of Mr. (or Col. or Dr. or Rev. as the case might be) on . . . last." But though the glory has departed, the difficulty of making anything like a bag of cock is perhaps greater than ever before, for gunners are younger and more numerous, and the shooting area is restricted to the immediate neighbourhood of Ootacamund.

Besides woodcock, the Nilgiri menu provides snipe—say half a dozen couple on a good day, with a jack thrown in if the sportsman is in luck ; jungle-fowl and spur-fowl—neither very plentiful ; hares—numerous in suitable localities such as the bracken on the borders of Badaga cultivation ; and quail—also common in favourite spots such as the bushes fringing a stream.

Pea-fowl were once found in numbers on the plateau, but are now extinct.

In Wynaad, the woodcock is not found. The only instance I know of its occurrence there was in 1898, when the late Mr. W. Hamilton—*clarum et venerabile nomen*—shot one in a swamp below Gadbrook Estate. Snipe are far more plentiful than on the Nilgiris, and wood snipe are not uncommon in certain localities, to which they are confined and to which they return year after year. Jungle-fowl and spur-fowl—especially the latter—are more common than on the higher plateau. I know places where they swarm, and where it is possible to make a bag of a dozen in a day. Hares are comparatively rare. Pea-fowl, though not extinct, have been so ruthlessly slaughtered by Chettis and other natives who possess guns, that they are only occasionally met with. I have a semi-tame flock on Rockwood, but these are gradually decreasing, being killed when they fly off my land. On the flat country below the Ghats, in Malabar, they are still very plentiful.

The woodcock (*Scolopax rusticula*), as I have said, is confined to the Nilgiris, and is there found in the small *sholas* near swamps, in which latter he finds his food, consisting chiefly of worms, though he does not disdain insects. He feeds at night, and more than once when crossing a swamp on the Kundahs in bright moonlight, I have flushed a woodcock at some distance from any cover. While on the subject of feeding, one peculiarity possessed by the woodcock and by all members of the snipe family deserves notice. He finds his food by touch, probing the soft ground with his long bill till it comes in contact with a worm. These "borings" can be seen in clusters in any

ground frequented by snipe or woodcock. But obviously when the long, thin bill, with mandibles tightly closed, is thrust deep into the tenacious clay of a swamp, the pressure of the ground would prevent its being opened to seize a worm. Nature has provided for this difficulty. Gently squeeze the jaws of a woodcock or snipe with lateral pressure between the finger and thumb, and the tip of the upper mandible will be seen to rise, closing again when the pressure is relaxed. The bird can thus use the end of his bill as a pair of forceps with which to seize and extract his food, and is not called upon to attempt the impossible feat of opening his bill for its entire length when embedded in the ground. I have not been able to detect any difference in colouring between the Nilgiri woodcock and his European congener—the only variation being that the former is considerably smaller. This variation, which I believe applies to woodcock wherever found in India, suggests a special breeding ground for the birds that visit the peninsula; and doubtless this is in the Himalayas, where the eggs have frequently been found. The sexes are alike; and everyone knows the “artist’s feather,” the outermost primary covert lying at the base of the first major primary.

The wood snipe (*Gallinago nemoricola*) is not found on the Nilgiris: it occurs in Wynaad, but is never plentiful. This bird comes in later than the ordinary snipe, and leaves earlier. I have a record of the dates on which I shot my first wood snipe, extending over a series of years, and the earliest date I find in my game book is October 27, while I have shot ordinary snipe on September 22. It inhabits only certain favoured spots, and these hold birds with unfailing regularity

every year. In other places in the neighbourhood, apparently just as suitable, a bird is never seen: what the special attraction is, I do not know. There is a small swamp five miles from my Estate in which I can make sure of finding a few wood snipe during the season. This swamp is never cultivated with paddy, and is covered with rather higher grass than usual. On both sides are large thickets of screw pine (*Pandanus odoratissimus*) and I generally find the birds in the marsh at the edge of these. Usually they are single; but I have several times put up and bagged a brace together. The wood snipe lies very close, in fact it will not rise till almost trodden on. On several occasions I have beaten the swamp without flushing one, and then, having gone back after a pintail snipe, have stumbled on the resting place of a wood snipe, and put him up on my return. When flushed he rises with a "croak," and flies slowly, giving the easiest of shots—so easy, in fact, that, if the gunner comes suddenly on a wood snipe after having shot several pintail, he is apt to swing too far in front. The bird never flies far; and if flushed on one side of the swamp I allude to it will settle down for certain on the other. The largest bag I ever made was five in one day; as a rule this would represent my bag during a season. As a table bird he is in my opinion scarcely worth powder and shot, the flesh being coarse and far inferior in flavour to that of an ordinary snipe. He is a handsome bird, but his coloration is too intricate to be set down in detail. At first sight he might well be mistaken for a small woodcock. His weight is from 7 to 8 ounces, about two-thirds the weight of an ordinary Indian woodcock.

I can well understand the ornithological reader opening his eyes in wonder at seeing the solitary

snipe (*Gallinago solitaria*) set down as a Wynaad game bird. But none the less I once found it there. In the *Asian* of February 8, 1898, I wrote:—"Some little time back, when shooting near D. in S.-E. Wynaad, with Mr. W. Hamilton, we bagged a good specimen of the Himalayan solitary snipe. I say "we" advisedly, as the prize was only discovered amongst our bag after the day's shoot was over, and I do not therefore know to whose gun it fell." I cannot be certain, but I believe the luck fell to me, as I distinctly remember the thought crossing my mind, when I knocked over a snipe which rose at the head of a long swamp, that it was much larger than an ordinary snipe. Mr. Hamilton was close to me at the time, as the swamp had narrowed to a few yards, and he told me afterwards that the same impression had flashed across him when the snipe fell. But neither of us examined the bird at the time—it was picked up by one of the beaters and slung on the stick with the rest; and it was only when we reached the D. bungalow, after the shoot was over, that the superior size of the bird, as it hung on the snipestick amongst forty pintails, attracted our attention. That it was something out of the ordinary was evident from the most cursory examination. When we returned to Rockwood the following day, we were able to refer to the books, and then the identity of the bird as a solitary snipe stood revealed beyond any possibility of doubt. It weighed over seven ounces, nearly double the weight of a pintail. The coloration corresponded exactly with the book description; and there was no mistaking the yellow-brown bill with black tip, and the olive legs and feet. So far as I know, this is the only

solitary snipe recorded from Southern India. Though obviously a chance visitant, its occurrence on this occasion makes its inclusion necessary amongst the game birds of Wynaad.

The pintail snipe (*Gallinago stenura*) is found both on the Nilgiris and in Wynaad, but is far more plentiful during the season on the latter plateau. The numbers vary greatly in different seasons: my experience is that a monsoon extending late into the year presages a good snipe season, and *vice versa*. As mentioned above, the earliest date on which I have shot this snipe in my part of Wynaad was September 22, and I have known a few individuals remain as late as the beginning of April. Below the Ghats, seemingly, they are later still, for I once shot a brace near N. on May 19. In Wynaad this snipe has a curious habit of retiring sometimes during the middle of the day into the jungle which borders the swamps. Frequently I have drawn a swamp blank or almost blank at noon, and coming back through it some hours later have found it full of birds. But this is not a universal rule, for at other times I have found plenty of birds in a swamp at high noon. If there is any special reason which induces snipe to seek cover, I am unaware of it—with this reservation, that they do not remain in the swamps after heavy rain for the all-sufficient reason that the swamps are then so full of water that they cannot obtain their food in the usual places. Often, when flushed in a swamp, a snipe will settle in the jungle at the edge—occasionally even on a bare grass hill. This propensity for cover becomes more marked, I think, as the season draws to a close and the weather gets hotter. The pintail feeds in the morning

and again in the early afternoon. During its feeding hours, as also after a shower, it is wilder and more difficult of approach than at other times. In the first case the reason probably is that the bird is more on the alert when seeking food than when resting; in the second case the obvious reason is that the gunner makes more noise when splashing through the water. More than once I have seen snipe following a plough, doubtless to pick up the worms as the slushy soil was turned over and exposed. Like the wood snipe, the pintail favours certain localities to the exclusion of others seemingly just as favourable; and in every swamp there are "hot corners." I will not go the length of saying that the fantail or common snipe (*Gallinago gallinago*) never visits the Nilgiris or Wynaad, but I have never seen one. When the late Mr. Hamilton was alive, our combined bag of snipe often reached four hundred in a season. Over and over again we have carefully searched through a day's bag, especially when it was large, with the view of finding a fantail, but in no instance was the search successful. My own impression is that the common snipe never visits this part of India.

The jack snipe (*Limnocryptes gallinula*) is found both on the Nilgiris and in Wynaad, but on neither plateau is it common. This bird also seems to have a penchant for certain localities; and most of the jacks I have shot have been found in one place in a large swamp lying just off the N. road. In my experience the jack is always solitary. His weight is two ounces or a trifle over; but though such a little mite he is well worth bagging.

The painted snipe (*Rostratula capensis*), which is not

a true snipe, I have never met with on the Nilgiris, nor have I heard of its occurrence there. In Wynaad I have shot it twice. On both occasions the bird was solitary, for though I beat all round the place from which it was flushed for some distance, I could not find its mate in either instance. These birds were evidently stray migrants from the Malabar plain, where they are not uncommon.

ON RIFLES

ON RIFLES

IN almost every old book on Indian sport will be found a chapter devoted to rifles and guns ; and though the writers were not unanimous as to the ideal battery for Indian shooting, on one point there was a general consensus of opinion—that for big game big rifles were a necessity. Against bison and elephants the tyro was enjoined to use nothing smaller than an eight bore, and to invest in a four bore if his physique would allow him to manage a rifle of this weight ; while he was told that even for thin skinned animals a large bore Express such as the '577 was better than a small one like the '400 or '360. There can be no question that this advice was sound when it was given ; but within the last ten years or so the passing of the black powder rifle and the introduction of “high velocity” rifles burning smokeless powder have brought about a revolution in sporting weapons ; and to-day the opinions of the old writers are obsolete, except with those sceptics, and they are not a few, who refuse to have anything to do with “new-fangled” inventions, and who stick to their old and well tried ally, black powder.

When I first settled down in Wynaad my battery comprised a double Magnum '500 Express, taking nominally six and a quarter drams of diamond grain black powder, a single Magnum Express of the same

calibre and taking the same charge, and a double eight bore rifle with a charge of twelve drams of black powder. Amongst Express rifles there was then as wide a choice as amongst cordite rifles in the present day. They ranged from that charming little miniature Express the '295 up to the '577 with a bullet weighing 648 grains; and the '450, the '500, the '500 Magnum, and the '577 all had staunch advocates as the best "all round" rifle for Indian sport. For some time I used a '577, but ultimately discarded it in favour of the Magnum '500. I found that the latter, though taking a lighter bullet, was quite as effective as the heavier rifle for all purposes for which an Express could be *legitimately* used, and in it the principle of the Express—a large charge of powder behind a light bullet—was more fully developed than in any other rifle of this class. I had core pegs specially made of different lengths, so that I could cast any bullet from a solid to one with a very deep hollow; but after many experiments I found the trade bullets could not be improved upon. For years I used the 340 grain bullet for deer, and the 440 grain for dangerous animals; but eventually I adopted the latter for universal use, as the lighter bullet propelled by the heavy powder charge flew to pieces almost on impact, and occasionally this resulted in unduly low penetration. Both my Expresses were built by Messrs. J. & W. Tolley, and better weapons of their class it would be impossible to find. The double rifle in especial was perfect in every way—very strongly built with lever-under-guard action, wonderfully accurate, and so well balanced that even with a charge of six drams and a bittock (the utmost charge the bottle-shaped '577-'500 case will contain) the recoil was no heavier than that of a shot-gun. This

rifle I have still, and after a constant and faithful service of sixteen years it is as good to-day in every respect as when it left the maker's hands. My double eight bore was built by Messrs. J. Woodward & Sons, and with a charge of twelve drams of No. 4 diamond grain is a most powerful weapon for thick skinned game. Most of my bison were killed with it, and it is still in excellent condition after sixteen years' continuous use.

Some years subsequently I became the possessor of a double twelve bore Paradox by Messrs. Holland. This weapon is a smooth bore, rifled for about one and a half inches from the muzzle, and this short twist gives the conical bullet a rotary motion sufficient to ensure great accuracy up to a hundred yards or a trifle over. Though the powder charge is light, within the above limits it is an extremely powerful rifle, while with shot it makes as good a pattern as the best cylinder gun. There are, I know, many sportsmen who scoff at a combined rifle and gun; and I quite agree that the ordinary ball-and-shot gun is a delusion and a snare, neither flesh, fowl, nor good red herring. But the Paradox is in a class by itself, and it is impossible to praise it too highly. Mine has been my constant companion for nine years, against all kinds of game from a bison to a snipe, and it has never failed me. Its light weight, handiness, and great power make it more eminently fitted to be the sportsman's *vade mecum* than any other weapon I know. The only drawback to my Paradox is the one inseparable from a black powder rifle—the smoke from the powder charge; but Messrs. Holland & Holland now build these guns for cordite, and though I have never had a chance of using one, I can well imagine that they are perfect.

My first purchase in the shape of a cordite rifle was a '256 by a maker who shall be nameless. This rifle was said to possess a muzzle velocity of 2400 ft. secs., and a striking energy of over 2000 ft. lbs. For a time I found it fairly satisfactory with deer, though not nearly as effective as my Express; but when one day I nearly came to grips with a bear after hitting him through the body and again in the chest, I thought it time to go back to a rifle on which I could depend.

It was a long time before I ventured on a cordite rifle again, and then I bought a '450 high velocity rifle by Messrs. Westley Richards. A very short experience with this rifle convinced me that all I had heard and read of the superiority of the cordite rifle over the black powder rifle was true, and that the latter was doomed. Parting with an old and tried friend is always painful, and it was not without regret that I put my Magnum '500 permanently on the shelf; but there was no gainsaying the fact that the '450 cordite was in every way far superior to my old love. The first three shots I fired from the new purchase were at sambur stags, and a single bullet sufficed for each. Soon afterwards I had an opportunity of trying it on bison. The first bull collapsed with a bullet through the neck; but—anxious to do justice to my old shooting tools—I did not accept this as convincing proof of the cordite rifle's superior powers, for, I said to myself, a solid bullet from the Express, and *a fortiori* a conical from the eight bore, would have been just as deadly. But when, a day or two afterwards, a second bull hit through the body went down all of a heap, I had to confess that my black powder rifles must take a back seat.

Encouraged by my experience with the '450, I invested in a '600 high velocity cordite rifle by Jeffery. Of the tremendous power of this rifle it is scarcely possible to convey an adequate conception on paper; but some idea of its capabilities may be gained from the statement that it has a striking energy of 8700 ft. lbs. against about 7000 in a four bore with fourteen drams of black powder. Only a rash man would prophesy in these days of rapid change and incessant invention; but it is difficult to conceive that a more powerful weapon than this can ever be built to be fired from the shoulder. In cold blood the recoil from this rifle is somewhat severe; but in the excitement of shooting it is not noticeable—certainly not deterrent even to a man of ordinary physique. Its smashing power, by which phrase I mean its power of disabling with even a badly placed body shot, is enormous: to hit is to bag. By its introduction the old heavy four and eight bores have been swept clean out of the field.

Of the making of cordite rifles there is no end. To mention a few of the best known, there are the '256, '275, '303, '375-'303, '360, '360 No. 2, '375, '400, '450, '500, '577, and '600. The first four I regard merely as toys: they are very accurate and possibly might prove satisfactory against any animal not bigger than a black buck, but are not powerful enough for general use. Of the '360 I have had no experience, but those who have used it (for Himalayan shooting chiefly) pronounce it to be a better rifle than the '450 black powder Express. The '360 No. 2 takes 55 grains of cordite with a 320 grain bullet. The '400 is undoubtedly a good rifle. The one made by Jeffery takes a charge of 55 grains of cordite in a bottle-

shaped '450-'400 case, with a bullet weighing 400 grains. The '450 takes a taper cartridge with 70 grains cordite and a bullet weighing 480 grains. This rifle is fully equal in power to an ordinary eight bore with black powder, and in my view is the pick of the basket for general service. But the importation of the '450 rifle into India is now prohibited by Government, that being the calibre of the old service Martini-Henry. Most gunmakers, however, have surmounted the difficulty by building rifles which approximate so nearly to the proscribed rifle as to be, for all practical purposes, the same weapon ; and to these substitutes my eulogium on the '450 as the best all round rifle applies. Messrs. Westley Richards, for example, build a '476, Messrs. Holland and Holland a '465, while Jeffery has a '475. The slight increase in calibre admits of a higher powder charge and a correspondingly heavier bullet, and these substitutes are therefore rather more powerful than the '450 ; but from a practical standpoint the difference is negligible. Messrs. Westley Richards' '476 takes 75 grains of cordite, with a 520 grain bullet, against 70 grains cordite with a 480 grain bullet in my '450 built by them. The '476 has a muzzle-velocity of 2500 ft. secs. and a muzzle energy of 5250 ft. lbs. These figures show its tremendous power, while its accuracy is so great that seven bullets fired from a distance of one hundred yards have all been put into a sixpence.

The '600 I conceive is the most powerful sporting rifle now in existence, and for large, thick-skinned game is without an equal. Cordite rifles have brought us much nearer the solution of the problem which defied solution when we had to rely on black powder, viz. an "all round" rifle effective against all kinds of

game ; but even yet the maxim holds that "a good big 'un' is better than a good little 'un.'" The '450 is quite powerful enough to floor an elephant or a bison with a No. 1 or No. 3 Jeffery bullet ; and though I have never tried it, I believe that an elephant might be killed by a properly placed body-shot with this rifle. But with the '600 it is not a question of belief but of conviction. My rifle takes a charge of 100 grains of cordite and a nickel-covered bullet weighing 900 grains, and has a striking force of 8700 lbs. No animal in creation could withstand this terrific shock. In the '450 the sportsman has a weapon effective against all game ; but if he wishes to possess a perfect battery for Indian shooting, and does not mind the extra expense, then let him buy a '450 or one of the recent substitutes for all thin-skinned game, and a '600 for use against bison and elephants.

The advantages of nitro rifles over those burning black powder are manifold. The absence of smoke is an inestimable boon, especially in damp still weather, as it enables the left barrel to be got in without loss of time—an advantage which frequently means the bagging of an animal which would be lost with black powder, and, on occasion, may even save the gunner from a mishap. Then nitro rifles have a much lower trajectory and a much longer point-blank range. Taking three hundred yards as the maximum sporting range, with a nitro rifle it is never really necessary to put up a sight for this distance, even though the rifle is fitted with one, for the difference in elevation is so slight that due allowance can be made by taking a full bead instead of the fine one used at shorter distances. Thirdly, nitro rifles have infinitely greater power ; in fact it may be said, broadly speaking, that bore for bore

they possess twice the power of black powder rifles. The fourth advantage is the one I have already alluded to, viz., that by varying the bullet a good nitro rifle becomes much more of an "all round" weapon than any black powder one. The choice of bullets is large. Jeffery (who has done so much towards making the nitro rifle the superb weapon it is) gives us six :—

No. 1, in which the base and about two-thirds of the cylindrical portion are nickel cased, the rest of the bullet (of soft lead) being exposed.

No. 2, which is similar to No. 1, save that the bullet has a fairly deep hollow.

No. 3, in which only the extreme point of the bullet is uncovered.

No. 4, or military pattern, in which the entire bullet has a nickel cover, the base being exposed.

No. 5, a very short bullet nickel covered almost to the point, which is blunt with a deep hollow.

No. 6, a solid bullet, cased like the No. 3, with only the extreme tip exposed, and with four longitudinal slits.

With the '450 rifle I consider the No. 1 bullet the best for use against thick-skinned game. It has immense penetration ; and though, being solid, it does not break up, the soft lead point is sufficiently exposed to make the bullet "mushroom" to a considerable extent after impact. Nos. 3 and 4 have greater penetration than the No. 1, but as they do not expand, they give less shock. The No. 5 is designed for small animals, and, owing to its lightness, the rifle has less recoil with this bullet than with any of the other patterns. The No. 6 I regard as by far the best bullet for use against thin-skinned animals and the *Felidæ*. It is also effective against bison, but for the latter I prefer the No. 1.

With the '600 rifle, which is meant only for dealing with the heaviest animals, I use two bullets. One is cased entirely in nickel, and has sufficient penetration to rake a bison from head to stern; the other is a soft lead bullet with a very blunt point, the extreme tip being free from the nickel jacket. With this bullet penetration is less, but the shock it gives is simply inconceivable.

The drawbacks attendant on nitro rifles are insignificant when weighed against the advantages which place them so far ahead of black powder rifles, and they can be summed up in a few words. First comes the absolute necessity for cleaning soon after use. Though the careful *shikari*, who loves the tools to which he owes the chief pleasure of his existence, would naturally clean his black powder rifle at the earliest opportunity after a day's sport, still no damage would accrue to such a weapon if allowed to remain in a foul condition for twelve hours or longer. But a nitro rifle cannot be mishandled in this way with impunity. The fouling set up by the nitro powder and the nickel jacket has a quickly corrosive action on the rifling, and its removal within a few hours is imperative. Nor can the work be delegated to a servant, as it is necessary that every particle of fouling should be removed. To a certain extent this disadvantage has been overcome by the introduction of a smokeless powder named "axite." In this a flat ribbon is used instead of a round cord, and owing, I presume, to a lubricant being incorporated with the powder in process of manufacture, a rifle can be left uncleaned without risk for a considerable time after "axite" has been fired in it. When the powder was first put on the market, Kynochs claimed that it was non-corrosive, non-erosive, that it had greater velocity

and greater striking energy than cordite, that it gave lower pressure, that the effect of temperature was lowered by half, that the rate of combustion was more uniform, giving a more comfortable recoil, and that it could be used in all rifles built for cordite without any alteration in the sights. I used the new powder in my '450 and found it excellent ; but when I applied to a certain firm of gunmakers for a fresh supply of cartridges, I was informed that they had ceased to stock axite, as they had received so many complaints against the powder. I insisted on being supplied with what I asked for, and eventually I received my cartridges. On what ground the complaints against the explosive were based I do not know ; but the new cartridges were just as satisfactory as the original lot, and personally I have nothing but praise for axite. The only other drawback I know to nitro rifles is the somewhat heavy recoil, especially in the large bores ; but this is never prohibitive, even to a man of ordinary strength, and is a very minor discomfort, compared with the enormous increase in power.

There are still sportsmen—I have met several—who regard nitro rifles as weapons more dangerous to the gunner than to the quarry. Doubtless some bad mistakes were made by gunmakers when these rifles were first introduced, and doubtless, too, nitro powders under certain conditions give higher pressures than black powder. But now that the action of these powders is thoroughly understood, and rifles are built to withstand far greater pressures than could by any possibility be exercised by cordite or any other nitro compound, these rifles are in every way as safe and reliable as the old ones built for black powder. If the owner of a nitro rifle is careful not to expose his

cartridges to an extreme temperature, and always to wipe them and the barrels and chambers of his rifle quite free from grease before use, there is very little variation in pressure—certainly nothing that need give the gunner the smallest alarm. There is on the market a “modified cordite” powder, intended for use in black powder rifles (I have never tried it); and I have heard of accidents occurring through men having used *ordinary* cordite instead of the weaker compound in weapons built for black powder. But such mishaps cannot fairly be attributed to the dangerous nature of nitro powders, nor should these be decried because, through carelessness or ignorance, such accidents have happened. I can remember that a similar prejudice against nitro powders was exhibited when their use was first proposed in shot guns, on account of accidents due to faulty construction of the guns, and faulty manufacture of the powder. But with greater knowledge of nitro compounds came improvement after improvement in both guns and powder, until the perfect gun and the perfect powder were evolved; and how many men use black powder in shot guns to-day? In like manner the evolution of the nitro rifle has been gradual and born of experience, until—if we do not yet possess the absolutely perfect nitro rifle and the absolutely perfect nitro rifle powder—we have such a close approximation to perfection that the reign of the black powder rifle is over. And as nitro powder offers even greater advantages for use in a rifle than in a shot gun, I have little doubt that in a short time the prejudice against nitro rifles will die a natural death, and that the supersession of black powder will be as complete in the one case as it has been in the other.

The cleaning of a nitro rifle is a matter to which the greatest attention should be given. I find the following method excellent. First send through the barrels a tightly fitting flannel plug, saturated with "Orite" (than which there is nothing better for removing the fouling of nitro powder), follow this up with a rag dipped in *boiling* water and then wrung out, wipe out with a dry rag, pass the pull-through half a dozen times through the barrels from the breech end, and finish up with a clean soft rag oiled with Orite. Let this last rag fit the barrel tightly when wrapped round the jag at the end of the cleaning rod, and change it as often as necessary until it comes out as clean as it went in. This method is troublesome, but the trouble will be amply repaid.

APPENDICES

APPENDIX I

MAMMALS AND GAME BIRDS

THE following table gives a list of the mammals found on the Nilgiris and in the Nilgiri-Wynaad. It is as nearly correct as I can make it; but possibly a few species may have been omitted. I have not thought it worth while to supply the vernacular names: those of the game animals will be found at the head of the chapters dealing with them. In regard to the scientific names, I have followed Blanford in every case.

Common Name.	Scientific Name.	Remarks.
(1) The lion-tailed monkey.	<i>Macacus silenus</i>	The Wynaad in the Ghat forests; probably not above three thousand feet.
(2) The bonnet monkey.	<i>Macacus sinicus</i>	Fairly common on the Wynaad plateau above the Ghats, and at the foot of the Nilgiris.
(3) The Madras langur.	<i>Semnopithecus priamus</i> .	Somewhat rare on the Wynaad plateau: common in the Ghat forests: very common below one thousand feet.
(4) The Nilgiri langur.	<i>Semnopithecus johni</i> .	Common on the Wynaad plateau, but does not descend the Ghats. Found also in <i>sholas</i> on the Nilgiris. Jerdon calls the Malabar langur <i>Presbytis johnii</i> , but Blanford's name for this monkey is <i>Semnopithecus hypoleucus</i> . The Malabar langur is common on the coast: rare in the Ghat forests and never ascends higher than one thousand feet. It can hardly, therefore, be classed as a Wynaad monkey.

Common Name.	Scientific Name.	Remarks.
(5) The slender loris.	<i>Loris gracilis</i>	Not uncommon in the Ghat forests at about one thousand five hundred feet.
(6) The tiger	<i>Felis tigris</i>	Very plentiful in Wynaad, but rarely bagged owing to the continuity of the jungles. Fairly common on the Nilgiris.
(7) The leopard or panther.	<i>Felis pardus</i>	Very common in Wynaad, and fairly common on the Nilgiris. Most variable in size, from the small dog-killing leopard, not bigger than a mastiff, to the panther of eight feet. The black variety is not uncommon on both plateaux.
(8) The leopard-cat.	<i>Felis bengalensis</i>	Found both on the Nilgiris and in Wynaad, but rare. Variable both in size and coloration. One specimen I shot on the Kundahs has the ground-colour a very dark rufous, with the spots crowded closely together all over. A pair I caught in Wynaad had the ground-colour palest fulvous, with the spots sparsely dotted over the body. Blanford, quoting Jerdon, gives the length of head and body as twenty-four to twenty-six inches, and length of tail eleven to twelve inches or more. I have never met with a specimen approaching this size. Probably the leopard-cat of the Nilgiris and Wynaad belongs to the small variety— <i>Felis wagati</i> of Gray. I once had a hybrid between a leopard-cat and a domestic cat. The mother, an ordinary tabby, belonged to the man in charge of the Devala travellers' bungalow, and was always hunting in the jungles round. The offspring was a leopard-cat, not to be

Common Name.	Scientific Name.	Remarks.
(9) The jungle-cat.	<i>Felis chaus</i>	distinguished from a wild one, save that the tail was barred, not spotted. This hybrid was tame with me, but savage with everyone else. To my regret, it went out hunting in the coffee near the bungalow one day, as was its wont, and never returned. Fairly common in Wynaad. Found doubtless on the Nilgiris, but I have never met with it there.
(10) The hunting leopard.	<i>Cynælurus jubatus</i> ...	I do not believe that this animal occurs on either plateau, but I include it because I once saw a skin at Gudalur, presented by a native for the reward. Its history I could not trace, but presumably the animal had been brought in from Mysore, where it is found, though rare in the extreme.
(11) The Malabar civet cat.	<i>Viverra civettina</i>	Found in Wynaad, but very rare. The small Indian civet cat, <i>Viverricula malaccensis</i> , should occur in Wynaad, but I have not heard of it there.
(12) The Indian palm-civet.	<i>Paradoxurus niger</i> ...	Found on both plateaux, but rare.
(13) The brown palm-civet.	<i>P. jerdoni</i>	Blanford notes this occurs on the Nilgiris. I have never come across it there or in Wynaad.
(14) The common Indian mungoose.	<i>Herpestes mungo</i>	In Wynaad.
(15) The ruddy mungoose.	<i>H. smithi</i>	Fairly numerous in Wynaad. Blanford says, "Jerdon obtained it at the foot of the Nilgiris"—which foot is not stated. Probably on the Eastern slope.
(16) The Nilgiri brown mungoose.	<i>H. fuscus</i>	The Nilgiris.
(17) The stripe-necked mungoose.	<i>H. vitticollis</i>	The Nilgiris, possibly also in Wynaad.

Common Name.	Scientific Name.	Remarks.
(18) The striped hyæna.	<i>Hycæna striata</i>	Ample evidence exists of its occurrence on the Nilgiris, but I have never been fortunate enough to come across it there, or in Wynaad.
(19) The jackal ...	<i>Canis aureus</i>	Very common on both plateaux, but especially on the higher one. The Indian wolf, <i>Canis pallipes</i> , should be looked for on the N.E. border of Wynaad, as Sanderson notes its occurrence in Mysore.
(20) The Indian wild dog.	<i>Cyon dukhunensis</i> (properly <i>dekkanensis</i>).	Very common in Wynaad. Not so numerous on the Nilgiris.
(21) The Indian marten.	<i>Mustela flavigula</i>	Both on the Nilgiris and in Wynaad.
(22) The European otter.	<i>Lutra vulgaris</i>	Rare in Wynaad, but common in the Ghat streams below one thousand feet.
(23) The smooth Indian otter.	<i>L. ellioti</i>	I have some hesitation in including this amongst Wynaad animals, but it certainly occurs with <i>L. vulgaris</i> low down on the Ghats.
(24) The clawless otter.	<i>L. leptonyx</i>	The Nilgiris.
(25) The sloth or Indian bear.	<i>Melursus ursinus</i>	Common in Wynaad in suitable localities. Common also in former years on the Nilgiris, but now almost extinct.
(26) The South Indian hedgehog.	<i>Erinaceus micropus</i> ...	Blanford writes:—"The repeatedly asserted occurrence of this form on the Nilgiris is shown by Anderson to be incorrect: the animal is, however, found on the eastern slopes towards the base." I have never seen it.
(27) The brown musk-shrew.	<i>Crocidura murina</i>	On both plateaux, but I am somewhat doubtful whether the common form is this or <i>C. cærulea</i> .

Common Name.	Scientific Name.	Remarks.
(28) The Indian pigmy shrew.	<i>C. perrotteti</i>	On both plateaux. I believe there is a water-shrew in Wynaad, for I once saw what I am certain was a shrew swimming in a stream near Devala, but I was unable to secure it.
(29) The Indian fruit-bat or flying fox.	<i>Pteropus medius</i>	I cannot say with certainty that the flying fox occurs in Wynaad; but I have been told it is not unknown near Sultan's Battery. As these bats fly long distances in search of food, those seen at the Battery, if they are found there, may possibly have been visitors from the Mysore country.
(30) Peters' horse-shoe bat.	<i>Rhinolophus petersi</i> .	Blanford says, "Coonoor, Nilgiri Hills."
(31) The little Indian horse-shoe bat.	<i>R. minor</i>	The Wynaad. Possibly <i>R. luctus</i> and the allied <i>R. affinis</i> also occur.
(32) The bi-coloured leaf-nosed bat.	<i>Hipposiderus bicolor</i> .	In Wynaad? and perhaps <i>H. speoris</i> as well.
(33) Kelaart's bat.	<i>Vesperugo ceylonicus</i> .	The Wynaad. Possibly also <i>V. abramus</i> .
(34) The common yellow bat.	<i>Nycticejus kuhli</i>	In Wynaad? Perhaps also <i>N. dormeri</i> .
(35) The painted bat.	<i>Cerivoula picta</i>	In Wynaad?
(36) The black-bearded sheath-tailed bat.	<i>Taphozous melanopogon</i> .	Found in Kanara, and possibly in Wynaad.
(37) Dobson's wrinkled lipped bat.	<i>Nyctinomus tragatus</i> .	Found in Malabar, and possibly in Wynaad. Perhaps <i>N. plicatus</i> as well. An investigation of the <i>Chiroptera</i> in this part of India is greatly needed.
(38) The large brown flying squirrel.	<i>Pteromys oral</i>	Common in Wynaad, both in the deciduous and Ghat forests.
(39) The small Travancore flying squirrel.	<i>Sciuropterus fuscicapillus</i> .	Blanford says, "Anderson also gives the Nilgiris as a locality." I have neither seen nor heard of this squirrel on the Nilgiris.

Common Name.	Scientific Name.	Remarks.
(40) The large Indian squirrel.	<i>Sciurus indicus</i>	<p>Of this squirrel Blanford writes :—"This species was divided into three by Jerdon, and into two by Anderson. I think all the three forms distinguished by the first-named are well-marked races. They are :—</p> <p>"(1) The Bombay squirrel of Pennant called <i>S. elphinstonii</i>. All the upper parts are red, no black occurring, tail-tip whitish. This appears rather smaller than the other varieties, and inhabits the northern part of the Western Ghats, but has been obtained by Sir O. B. St. John as far south as Mysore.</p> <p>"(2) <i>S. maximus</i> of Jerdon, not of Schreber. This is chiefly red above, but there is some black on the shoulders and upper part of the tail, the tip of which is usually yellowish. This race, which has no special name, is found in Orissa, Bastar, Chutia Nagpur, South-Western Bengal, and Manipur.</p> <p>"(3) <i>S. malabaricus</i> or <i>S. maximus</i> (both founded on Sonnerat's Great Malabar Squirrel). Shoulders, rump, and tail, with more or less of the back, black. This is found in Southern Malabar and parts of Central India."</p> <p>From these remarks it would appear that Blanford confined the second variety to North-Eastern India. I must have examined at different times some fifty skins from various parts of Wynaad, and invariably the tail, for about a quarter of its length from the tip, was</p>

Common Name.	Scientific Name.	Remarks.
		<p>yellow. I have also examined several skins from South Malabar, at and near the foot of the Ghats, and the same characteristic, the yellow tail-tip, was always present. The coloration in this part of India is generally a wholly red body with black tail, the latter tipped with yellow for the last quarter of its length. But I have occasionally seen the black on the shoulders alluded to by Blanford.</p> <p>Blanford gives the habitat of the third variety as "Southern Malabar"; but I have never yet seen a skin from the foothills of the Ghats in South Malabar with a wholly black tail. I believe, however, that this race is found in South Malabar, but only in the extreme south of the district, towards Cochin.</p> <p>Blanford's distribution would therefore seem in need of revision. I think the habitat of the second variety should be extended to the Wynaad, and the foothills of the Ghats lying to the north of the South Malabar District; and that the habitat of the third variety should be restricted to the extreme south of Malabar.</p> <p>The first variety—the squirrel with a wholly red body and tail, the latter with white tip—I have never seen anywhere in my part of the country. But it has been found in Mysore, and should be looked for across</p>

Common Name.	Scientific Name.	Remarks.
		the frontier to the N.E. of the Wynaad District. <i>S. maximus</i> of Jerdon is common all over the Wynaad plateau.
(41) The grizzled Indian squirrel.	<i>Sciurus macrurus</i> ...	Common on the Nilgiris.
(42) The palm-squirrel or common striped squirrel.	<i>S. palmarum</i>	Both plateaux, but not common on the lower one. The squirrels I have seen in Wynaad have always appeared to me to be darker than those on the Nilgiris. Possibly the Wynaad race should be referred to <i>S. tristriatus</i> .
(43) The dusky striped squirrel.	<i>S. sublineatus</i>	Both plateaux.
(44) The Malabar spiny mouse.	<i>Platacanthomys lasiurus</i> .	Blanford says, "there is a specimen in the British Museum labelled Ootacamund, but I am doubtful if the locality is correct." I have never heard of the animal on either plateau.
(45) The long-tailed tree-mouse.	<i>Vandeleuria oleracea</i> .	Jerdon's " <i>Mus nilagircus</i> " is the same or merely a variety.
(46) The common Indian rat.	<i>Mus rattus</i>	<i>M. decumanus</i> may occur as well.
(47) The white-tailed rat.	<i>M. blanfordi</i>	The Nilgiris. I do not know of its occurrence in Wynaad.
(48) The common house-mouse.	<i>M. musculus</i>	Possibly <i>M. buduga</i> as well.
(49) The metad rat.	<i>M. mettada</i>	I have included this because there is a brown field-rat in Wynaad which I think is this species.
(50) The Indian mole-rat.	<i>Nesocia bengalensis</i> ...	The Nilgiris and probably also Wynaad.
(51) The bandicoot rat.	<i>N. bandicota</i>	In Wynaad, but rare.
(52) The Indian bush-rat.	<i>Golunda ellioti</i>	?
(53) The Indian porcupine.	<i>Hystrix leucura</i>	Very common on both plateaux.
(54) The black-naped hare.	<i>Lepus nigricollis</i>	On both plateaux, but much commoner on the higher one.

Common Name.	Scientific Name.	Remarks.
(55) The Indian elephant.	<i>Elephas maximus</i>	Common in the Ghat forests, and also further inland where the forests are dense. Widely distributed over Wynaad at one time, but has receded before cultivation by Europeans. Exceedingly rare now on the Nilgiris. Probably the last elephant seen on the Kundahs was the female shot by the late Charles Havelock near the Bison Swamp in or about 1870.
(56) The gaur	<i>Bos gaurus</i>	The "bison" of sportsmen. Numerous in the Ghat forests and in other suitable localities inland. As rare now on the Nilgiris as the elephant.
(57) The Nilgiri wild goat.	<i>Hemitragus hylocrius</i> .	The "ibex" of sportsmen. Found on the northern and western faces of the Nilgiris, at the edge of the cliffs. Being strictly protected, the herds are increasing yearly. Unknown in Wynaad.
(58) The nilgai or blue bull.	<i>Boselaphus tragocamelus</i> .	There is a tradition (which may be true, as the animal is found in Mysore) that the nilgai occurs at the base of the hills, near the Gazalhatti Pass.
(59) The four-horned antelope.	<i>Tetraceros quadricornis</i> .	Has been seen on the Nilgiris, but is exceedingly rare.
(60) The rib-faced or barking deer.	<i>Cervulus muntjac</i>	Common on both plateaux.
(61) The sambar deer.	<i>Cervus unicolor</i>	Common on both plateaux in suitable localities. In Wynaad much more numerous above three thousand feet than below.
(62) The spotted deer.	<i>C. axis</i>	Not found on the Nilgiris. In Wynaad fairly numerous in bamboo-jungle.

Common Name.	Scientific Name.	Remarks.
(63) The Indian chevrotain or mouse-deer.	<i>Tragulus meminna</i> ...	Not found on the Nilgiris. Common in the Wynaad Ghat forests, more rare inland. Blanford says, "below two thousand feet," but I have found it up to four thousand feet.
(64) The Indian wild boar.	<i>Sus cristatus</i> .	Common on both plateaux.

The following table gives a list of the game birds found on the Nilgiris and in Nilgiri-Wynaad. In the scientific nomenclature I have followed Oates. The quails need further investigation, and I believe this would result in the addition of several varieties not usually ascribed to the Nilgiri District. I have omitted the pigeons, as they do not rank as game birds.

Common Name.	Scientific Name.	Remarks.
(1) The little button-quail.	<i>Turnix dussumieri</i> ...	This quail I think occurs in Wynaad. I believe I have seen it on the N.E. confines of the district, but I cannot speak with certainty.
(2) The Indian button-quail.	<i>Turnix tanki</i>	I have shot this bird twice near Gadbrook Estate. On both occasions I found a pair in stubble in the same paddy field. The field had been reaped and was quite dry.
(3) The black-breasted quail.	<i>Coturnix coromandelica</i> .	The Nilgiris. May possibly occur at the foot of the western slopes near Gudalur.
(4) The painted bush-quail.	<i>Microperdix erythrorhyncha</i> .	On both plateaux.
(5) The jungle bush-quail.	<i>Perdicula asiatica</i> ...	Do.
(6) The red spur-fowl.	<i>Galloperdix spadicea</i> .	Do.
(7) The painted spurfowl.	<i>G. lunulata</i>	Do.

Common Name.	Scientific Name.	Remarks.
(8) The common peafowl.	<i>Pavo cristatus.</i>	Very plentiful in former years on the Nilgiris, but now so rare as to be almost extinct. In Wynaad still fairly numerous in a few secluded spots, but so harassed by natives possessing guns that on a large portion of the Wynaad plateau it has been exterminated.
(9) The grey jungle-fowl.	<i>Gallus sonnerati</i>	Common on both plateaux. The efforts made by the Game Association to introduce the red jungle-fowl (<i>Gallus gallus</i>) have been unsuccessful.
(10) The small whistling duck.	<i>Dendrocygna javanica.</i>	In Wynaad, but rare. I have shot it twice.
(11) The woodcock.	<i>Scolopax rusticula.</i>	Not very rare on the Nilgiris in the <i>sholas</i> at the head of swamps from November to February. ¹
(12) The wood-snipe.	<i>Gallinago nemoricola.</i>	Found in Wynaad in certain localities, but not common. Unknown on the Nilgiris.
(13) The solitary snipe.	<i>G. solitaria</i>	Once shot by me in Wynaad.
(14) The pintail snipe.	<i>G. stenura</i>	Found on both plateaux, but much commoner on the lower one. I have never met with the fantail or common snipe (<i>Gallinago gallinago</i>).
(15) The jack snipe.	<i>Limnocryptes gallinula.</i>	Found both on the Nilgiris and in Wynaad, but rare. Always solitary.
(16) The painted snipe.	<i>Rostratula capensis</i> ...	I have shot this bird twice in Wynaad. Unknown on the Nilgiris.

Once shot by Mr. W. Hamilton in Wynaad.

APPENDIX II

RULES AND ORDERS ON THE PRESERVATION OF GAME AND FISH IN THE NILGIRI DISTRICT

I

MADRAS ACT NO. II OF 1879.

An Act to provide for the protection of Game and Acclimatised Fish in the District of the Nilgiris in the Madras Presidency.

Whereas it is expedient to provide for the protection of wild animals and birds used for food and of acclimatised fish, and to prohibit the killing, capturing, and selling game and acclimatised fish in the district known as the Nilgiris, as described in the Schedule hereto appended, under certain conditions It is hereby enacted as follows :—

1. This Act may be called “the Nilgiri Game and Fish Preservation Act, 1879”; and it shall come into operation in the district aforesaid, or such parts thereof and from such date as the Governor in Council may from time to time declare by notification in the *Fort St. George Gazette*.

2. In this Act the word “game” shall include bison, sambar, ibex, jungle-sheep, deer of all descriptions, hares, jungle-fowl, pea-fowl, partridge, quail, spur-fowl, *snipe and woodcock*, Nilgiri wood pigeon, and the imperial pigeon or such birds or animals as the Governor in Council may deem fit to specify by notification from time to time in the *Fort St. George Gazette*.

3. The Governor in Council may, by notification in the *Fort St. George Gazette*, from time to time, fix a season or seasons of the year during which it shall not be lawful for any person to shoot at, kill, capture, pursue, or sell, or attempt to kill, capture, or sell game, as may be specified in such notification within the district aforesaid.

Provided that nothing in this Act contained shall preclude proprietors or occupiers of land from adopting such measures on such lands as may be necessary for the protection of crops or produce growing thereon.

4. Whenever any animal, bird, or fish, useful, for food, not indigenous to the district aforesaid, is introduced into it with the approval of the Government with a view to becoming acclimatised or being propagated therein, it shall be lawful for the

Governor in Council, from time to time by notification in the *Fort St. George Gazette*, to prohibit altogether or to regulate in such manner and for such period, not exceeding three years, as may be declared in such notification, the pursuit, killing, or capture of such animal, bird, or fish.

5. It shall be lawful for the Governor in Council, by notification in the *Fort St. George Gazette*, from time to time to make rules for the regulation and control of fishing in any stream or lake within the said district; and such rules may, with the view to protect acclimatised fish, which

may be believed to be there, or may be hereafter introduced therein, prohibit or regulate the poisoning of the waters of any stream or lake, the throwing of any deleterious matter therein, the use of fixed engines for the capture of fish in any stream, and the use of nets of a mesh below a certain size to be defined in such rules for the capture of fish in such stream or lake.

6. Any Government officer or servant or policeman producing his certificate of office, or wearing the prescribed distinctive dress or badge of his department, may require any person whom he finds committing any offence against

Sections 3, 4, or 5 of this Act, to give his name and address,

or if there is reason to doubt the accuracy of the name and address so given, to accompany him to the nearest police station.

7. Every person convicted before a magistrate of any offence against Sections 3, 4, or 5 of this Act shall be liable for a first offence to a penalty not exceeding rupees fifty and to the forfeiture to Government, at the discretion of the magistrate, of the game, birds, or fishes taken, and of all guns, engines, implements, nets, and dogs used in or for the purpose of aiding the commission of such offence, and, in default of payment of fine, to simple imprisonment for a period not exceeding one month, and for every second and subsequent offence, to a penalty not exceeding rupees one hundred, and the same liability to forfeiture, and in default of payment, to simple imprisonment for a period not exceeding two months.

8. The provisions of the Code of Criminal Procedure relating to the summoning and examination of persons accused and witnesses, and to the levying of penalties shall be applied to proceedings under this Act.

9. All fees, fines, and forfeitures realised under this Act shall be paid into the public treasury.

But it shall be competent to the convicting Magistrate to award such portion of the fine, or of the proceeds of the forfeiture as he may think fit, not exceeding one half the amount of full fine authorised to be imposed by this Act, in any case under this Act, to the person or persons on whose information the conviction is obtained.

SCHEDULE REFERRED TO IN THE PREAMBLE.

The Nilgiri District shall, for the purpose of this Act, be held to be bounded by—

The north bank of the Bhavani River from Attipadi in Attipadi Valley to the junction of the Moyar River.

The west and south banks of the Moyar River from its junction with the Bhavani to the point in the Mudumullah District nearest Gudalur.

A line carried thence to the head of the Pandi River (Ouchterlony Valley).

The east bank of the Pandy River to where it falls near the Karkur Pass in Malabar Payenghaut.

A line along the south crest of the Ouchterlony Valley and across the western slopes of the Nilgiri and Mukurti Peaks and Sispara Ranges to Wallaghaut.

A line thence along the west crest of the Silent Valley (Malabar) Range.

N. B.—The district shall include the entire tract known as the Silent Valley.

A line from the south end of the above named range to the Bhavani River at Attipadi in the valley of the same name.

II

THE RULES OF THE NILGIRI GAME AND FISH PRESERVATION ASSOCIATION

1. The name of the Association shall be "The Nilgiri Game and Fish Preservation Association."

2. The objects of the Association are the preservation of the existing indigenous game and the introduction of game birds and animals and fish, either exotic or indigenous to India.

3. Any person taking out a licence under the Game Act shall be eligible for membership.

4. Any licensee desirous of becoming a special member of the Association, shall submit a written request to the Honorary Secretary to that effect, and if elected a member, an entrance fee of Rs. 5 must be remitted to the Honorary Secretary. Such special membership shall continue only so long as the member continues to take out a licence from year to year, always providing that absence from the district during a season shall not terminate such special membership. Any other person shall be eligible for ordinary membership on payment of Rs. 5 and election, but shall have no vote.

5. An Annual General Meeting shall be held on the 15th July each year or such date subsequent thereto as may be fixed by the President, when the Committee shall submit an Annual Report of their proceedings with a statement of accounts.

6. A Special General Meeting shall be held at any time on the application of 10 members of the Association to the

Honorary Secretary, provided 14 days' clear notice of such meeting has been given in writing to the Honorary Secretary, and that the notice specifies the subject to be discussed at such special meeting.

7. The control of the funds and the entire management of the Association shall be under a Committee comprised of the President and not less than 12 members to be elected at the Annual General Meeting.

8. The Collector, by virtue of his appointment, shall be *ex-officio* President.

9. The Committee shall elect its own Honorary Secretary.

10. The Committee shall meet once a quarter or oftener if necessary. Four Members of the Committee shall form a quorum and the Chairman shall have a casting vote.

11. The accounts of the Association shall be audited yearly by two Members of the Committee and the Honorary Secretary.

12. It shall be competent for the Committee to form bye-laws to be in force till the following Annual General Meeting.

III

NOTIFICATIONS.

HUNTING, SHOOTING, AND FISHING.

Fort St. George, January 10th, 1894. No. 40.

His Excellency the Governor in Council is pleased under sections 21 and 26 (*f*) of the Madras Forest Act, to make the following rules for the regulation of fishing in reserved forests and in all lands at the disposal of Government within the following limits:—

- (1) The south bank of the Bhavani River; from Attipadi, in the valley of that name, to its junction with the Moyar River;
- (2) from that point the north bank of the Moyar River as far as the boundary of the Nilgiri District, and thence the boundary of the said District as determined for ordinary administrative purposes to the Nilgiri Peak;
- (3) from that point the western crest of the Nilgiri Hills to its termination below Sispara;

(4) thence along the northern, western, and southern crests of the Silent Valley range to its southernmost point ;

(5) from that point to Attipadi ;

and of hunting and shooting in all the reserved and rented forests, fuel, and fodder reserves, grazing-grounds, and areas under special fire-protection within the said limits.

Rules.

1. Unless with the sanction of Government no person shall shoot at, wound, or kill the females or immature males of any of the following animals within the limits of any reserved or rented forest or any fuel or fodder reserve grazing-ground or area under special fire-protection :—

- | | |
|--------------------|---------------|
| (1) Bison or Gaur. | (4) Ibex. |
| (2) Sambur. | (5) Antelope. |
| (3) Spotted-deer. | |

2. Unless with the sanction of Government no person shall kill, wound, or shoot at any mature male sambur or spotted deer if it is hornless or if its horns are in velvet.

But any member of the Ootacamund Hunt Club may kill sambur brought to bay by the hounds whilst in the proper pursuit of hunting. This permission, however, will be subject to the control of the Collector of the Nilgiris, who will frame such precautionary measures as may be necessary.

3. No person shall kill, wound, shoot at, or capture pea-hen at any time throughout the year, or the hens of jungle-fowl between the 1st of January and 16th of September of each year. No person shall take the eggs of pea-hens or of jungle-hens at any time throughout the year.

4. No person shall hunt, kill, wound, or shoot at any game as defined in the Madras Act II of 1879, within any of the reserved or rented forests, fuel or fodder reserves, grazing-grounds or areas under special fire-protection comprised within the aforesaid limits or shall fish within these limits * until he has obtained a licence from the Collector of the Nilgiris. [*Vide notification 70, dated 11-2-1908].

5. Any person may obtain from the Collector a licence to shoot game and to fish on payment of the following fees :—

- * (1) Licence to shoot game and fish for period not exceeding one month, Rs. 25.
- * (2) Licence to shoot game and fish for 2 months, Rs. 35. }
- (3) Licence to shoot game and fish for the whole season, Rs. 50.
- (4) Licence to fish for fish other than trout, Rs. 10.

The Collector may refuse to grant a licence if the applicant has been convicted of an offence against the rules under the Forest Act relating to hunting, shooting, and fishing, or against the provisions of Act II of 1879, or for any other special reason to be stated in writing. The licence shall not be transferable and shall hold good for the season from September 16th to the following September 15th, whether it be taken out at the commencement of or during the currency of the season. [Vide notification No. 250, dated 26th May, 1908.]

Against any order issued by the Collector under the preceding clause an appeal shall lie to the Board of Revenue if filed within three months of the date of the orders appealed against.

The Collector of the Nilgiris shall, however, have authority, at his discretion, to reduce the payment for each licence to Rs. 5 in the case of non-commissioned officers and soldiers of His Majesty's forces on proof to his satisfaction that the application for the licence is for *bona fide* sporting purposes.

6. The seasons during which licences shall permit hunting or shooting of game or fishing in the reserved or rented forests or other areas specified in Rule 4 comprised within those limits shall be duly notified from time to time by the Collector of the Nilgiris, and shall be clearly endorsed on the licences.

- (1.) Under rule 6 the Collector of the Nilgiris notifies the following **CLOSE SEASON** for the year ending 15th September, 1909.

For reserved forests, fuel and fodder reserves, Toda putta lands, grazing-grounds and areas under special fire-protection including the reserved and rented Forests in the South-East Wynaad Division :—

1st June to 31st October inclusive—for large game.

15th March to 15th September inclusive—for small game.

* These rates apply only to persons residing or about to reside for less than 3 months on the Hills.

- (2.) The Collector of the Nilgiris hereby notifies the following alteration of season for bison shooting in the Wynaad :—

“The **OPEN SEASON** for bison shooting shall be from 1st May to 31st August in the Wynaad only, west of the Moyar river.”

7. The Collector may from time to time by notification in the District Gazette, declare all or any rivers, streams, or lakes closed against fishing during any year or part of a year within any part of the aforesaid scheduled area, and may similarly declare the whole or any part of any reserved or rented forest, fuel or fodder reserve, grazing-ground or area under special fire-protection within such scheduled area, closed against shooting or hunting for the whole or any part of any year. He may also prohibit within the same areas and for like periods the pursuit, killing, or capture of any particular species of game and fish.

The Collector notifies :—

- (1.) That ibex shooting will be re-opened to holders of shooting licences from 1st November, 1908, to the 31st May, 1909, both inclusive, subject to the proviso that no holder of such licence shall during the above period shoot more than one *bona fide* saddle back, the head and skin of which must be forwarded to the Honorary Secretary Game Association for inspection and return, on penalty of forfeiting his licence.
- (2.) That no partridges, pea-fowl, or other game birds introduced by the Nilgiri Game Association shall be shot at, killed, or captured within the areas specified above.
- (3.) That the number of dogs used in beating for small game shall not be more than 8 a party. When a party goes after big game with more than 8 dogs, shot guns shall not be taken, and small game shall not be shot.
- (4.) That the beating of the sholas in the Kundah reserve and of the following reserves in the Kotagiri sub-range of this District either with beaters or dogs, or firing at any small game therein are prohibited during the current season, *i.e.*, up to 15th September, 1909. Any licensee may, however, beat these sholas and reserves for tigers or panthers, provided he does not fire at any other game whatsoever which may be started when so beating.

LIST OF RESERVES.

Longwood—Portion north and east of a line from the
Kengarai sign post to the top of the hill.

Longwood, No. I.

Nedukaduhalla.

Sundatti.

Sundatti Addition.

Kunshola, Nos. I and II.

Madanad.

Madanad Addition.

Kodanad Valley.

Kodanad Valley, Additions I and II.

Nedugula.

Nedugula Addition.

Avarahalla.

Gudakalhalla No. I, north of Kil-Kotagiri bridle-path.

Seven Mile Tope.

Kannerihodai.

Ullavanadmund Shola and Additions I and II.

Sullicodu Nos. I and II.

Attukadu.

Warbreccan.

Sinnattu Reserve and Addition.

Uppatti Shola and Addition.

Doddakavu.

Curzon Valley Block III, west of Kil-Kotagiri-Curzon
bridle-path.

(5.) The number of bison to be shot by each licence-holder
during the open season is restricted to one bull.

(6.) The following reserved forests and areas under special
fire-protection are closed against hunting or shooting
during the current season; viz., up to the 15th
September, 1909.

Reserves closed against all shooting.

Marlimund Plantation.

Konabettu Forest (part of the Sigur Reserve) Northern
Slopes.

Reserves closed to small game shooting only.

Governor's Shola.	| Tiger Shola.	| Sim's Park.
Sheffield Plantation.	| Kuruthuguli Shola.	| Rallia.

The sholas on the East and South sides of Hecuba Hill.

- (7). Fishing in the following rivers and lakes is prohibited, except to licence-holders and except in the seasons noted against each, and fishing for acclimatised fish is prohibited except in those seasons and in accordance with the conditions specified.

RIVERS.

Parsons Valley Stream	...	Closed against all fishing.
Pykara	River and its tributaries.	Open to fishing with rod and line only between February 16th and July 14th inclusive, except the Pykara river where carp may be fished for all the year round. Any trout caught by anyone fishing for carp in the Pykara river between July 15th and February 15th must be returned to the water. The artificial fly only may be used in the above rivers with the exception of the Pykara where any style of rod fishing is permitted.
Avalanche	do. do.	
Kundah	do. do.	
Karteri	do. do.	
Chillahala	do. do.	

LAKES.

Snowdon Ponds Closed against all fishing
 Ootacamund Lake—the Bay below Awdry House. Do.
 [Notification 42, dated 2-11-86.]

8. The poisoning of water, the dynamiting of fish, the setting of cruives or fixed engines for the capture or destruction of fish, the damming and baling of water for the capture of fish, the netting of fish with nets, the meshes of which are under $1\frac{1}{2}$ inches square, and the setting of traps and snares for the capture of game are absolutely forbidden anywhere within the limits of the scheduled area in which these rules are in force

9. Any breach of the above rules within any area reserved under Section 16 of Act V of 1882 will render the offender liable on conviction before a magistrate, to the punishment provided by Section 21 of the Act, and any breach of the

above rules in any of the above-mentioned areas, other than those reserved under Section 16 of the Act, will render the offender liable on conviction before a magistrate to imprisonment for a term which may extend to one month or to a fine which may extend to Rs. 200 or both.

NOTIFICATION UNDER ACT II OF 1879.

His Excellency the Governor in Council prohibits the poisoning of the under-mentioned streams and lakes and the throwing of dynamite or any other deleterious matter therein, and the use of nets of a mesh below one inch and a half.—
Fort St. George Gazette, 25th November, 1884, page 23.

Streams and Lakes.

1. Ootacamund lake and stream issuing therefrom.
2. Marlimund Reservoir in Ootacamund.
3. Lawrence Asylum lake and stream issuing therefrom.
4. Pykara river and its confluents from their sources down to the limits.
5. Avalanche or Kundah river and its confluents.
6. The Kateri and its confluents.

NOTIFICATION UNDER ACT IV OF 1897.

(1).

Fort St. George, February 11th, 1908, No. 70.

Under Section 6, His Excellency the Governor in Council is pleased to make the following rules in respect of the water specified in the schedule annexed thereto :—

Rules.

The erection and use of fixed engines, the construction of weirs and the use of nets the meshes of which are less than one and a half inches square for the capture or destruction of fish at any time throughout the year are absolutely forbidden.

2. All fishing, which means the capture of or attempt to capture fish by any means, and includes the baling of water with a view to the capture of fish, in any of the waters specified in the schedule hereto annexed is prohibited between the 15th March and 15th September annually.

3. A breach of any of the above rules shall be punishable on conviction before a Magistrate with fine which may extend to one hundred rupees, and when the breach is a continuing

breach, with a further fine which may extend to ten rupees for every day after the date of the first conviction during which the breach is proved to have been persisted in.

4. Any fixed engines erected or used or nets used in contravention of the above rules shall be liable to seizure and removal by any Police officer, or other persons especially empowered by the Local Government under Section 7 of the Indian Fisheries Act to make arrests without an order from a magistrate and without warrant, and any magistrate trying any breach of these rules or any offence punishable under the Indian Fisheries Act, may declare that any fixed engines erected or used or nets used in contravention of these rules, and any fish taken by means of such fixed engine or net shall be forfeited.

Schedule.

The Bhavani river (with its tributaries) from its source down to the inflow of Tamalai stream below Nirali.

2. The Moyar river with such tributaries as are within the Nilgiri or Coimbatore Districts, from the Pykara falls to the Gazzalhatti chattram.

3. The Siruvani and the Gopaneri rivers and their tributaries, lying in the Malabar and Coimbatore Districts.

(2).

Under Section 7 of the Indian Fisheries Act IV of 1897, His Excellency the Governor in Council is pleased to empower:

(1.) All Forest Officers (as defined in Section 2 of the Madras Forest Act V of 1882) employed in the Nilgiri, Malabar, and Coimbatore Districts ;

(2) The Inspector of Fisheries, Bhavani and Moyar rivers, and the watchers employed under his supervision, to arrest without an order from a magistrate and without warrant, in accordance with the provisions of the Section, any person committing in their view, in respect of the waters specified in the schedule hereto annexed, any offence punishable under Section 4 or 5 of the said Act or any rules issued under Section 6 thereof.

Schedule.

[Vide above.]

IV.

RESOLUTIONS, ETC.

1. No licencee shall shoot more than four sambur stags, four spotted deer stags, and three black buck.
2. The numbers given above under each species include any females or immature males which may be shot whether fine has been paid or not.
3. Any licence-holder who fires at any jungle-sheep, male or female, with shot is liable to forfeiture of his licence.
4. Shooting at small game between sunset and sunrise is absolutely forbidden.
5. The Game Association considers it highly desirable to maintain a full record of heads obtained in the Nilgiris District each season; licence-holders are therefore earnestly requested to send each head of sambur, antelope and spotted deer to the Honorary Secretary, Game Association, for measurement and record. The head will be promptly returned.
6. No gaff may be used.
7. No trout may be taken which is under 13 inches in length or which is evidently in spawn.
8. Fishermen are earnestly requested to give the Honorary Secretary all the information in their power regarding any trout which they may see or catch, as the information at present available does not afford sufficient data to be able to definitely determine the breeding season of the fish. The following particulars are especially asked for:—
 - (a) Locality of fish (which will not be divulged).
 - (b) Weight.
 - (c) Probable species.
 - (d) Whether any signs of being in spawn.
9. For the guidance of licence-holders, the Committee decides "that horns less than 30 inches for a sambur stag," and "22 inches and under for a cheetal stag, shall be the definition of 'immature.'"
10. Small game shooting to be restricted to two days in the week. A part of a day should count as one day.



APPENDIX III

THE PRESERVATION OF SKINS.

SOME PRACTICAL HINTS.

Mr. Alfred Chatterton, Director of Industries, Madras, writes to the *Madras Mail* :—

During the last three years large numbers of skins have been received from sportsmen and others to be cured by chrome tanning in the Government Chrome Tannery, which is now located at Sembiam, a small village near Perambur. We do not undertake the work of a taxidermist, but do nothing more than convert the skins into leather, generally with the hair on. As a rule, small skins are usually received in fair condition and turn out satisfactorily, but more frequently than not the skins of larger animals, such as bison, sambur and mugger, arrive in a stinking or damaged condition, and naturally the results produced by tanning them are by no means satisfactory. The great majority of the skins seem to be simply cleaned and dried in the sun, and if this is done with care and the skin subsequently protected from moisture, the result is satisfactory. But very often the drying is not thoroughly done, or in the course of transit the skins get damp or wet, with the result that decomposition sets in and the hair falls off.

PRELIMINARY CURING.

For some little time past we have therefore interested ourselves in trying to find out the best method by which skins and sporting trophies can be treated in the jungle, so that when they are subjected to permanent curing processes the results may be satisfactory. In the first place it is essential that the skin should be properly removed from the animal. To do this satisfactorily requires practice, and to any one who wishes to make the most of sporting trophies I would

strongly advise a preliminary course of training in a neighbouring slaughter house. The work is not very pleasant, but it must be done if good results are to be obtained. Out in the jungle, as soon as the animal is dead, it should be carried to a cool, shady spot, and when the skin has been removed it should be thoroughly washed in fresh water, to get rid of the blood and dirt. The flesh side should be carefully examined and all adhering flesh or fat should be removed with a sharp knife. The skin is then ready for the treatment which will prevent putrefaction setting in before it can be subjected to permanent curing processes.

SALT AS A PRESERVATIVE.

The basis of all this is the proper application of common salt, and this by itself yields satisfactory results if properly done. When only salt is available for curing the skin, make a saturated solution, and having stretched the skin out on the ground, apply it to the flesh side, rubbing it well in. Then fold the skin over and leave it to dry in a shady place. As soon as it is thoroughly dry, peg it out on the ground tightly and apply the salt solution a second time, and leave it to dry stretched out on the ground. When it is thoroughly dry, fold the skin down in the middle of the back with the hair side inwards, having first sprinkled it with powdered naphthalene. Roll the skin up tightly and keep it dry.

THE ATLAS PRESERVATIVE.

In addition to common salt various preservative substances may be applied to the skin with good results. As a preliminary to the salt treatment the skin may be immersed for about half an hour in a one-eighth solution of formic acid. This causes the pelt to swell up and renders subsequent application of salt more effective. Another plan which can be recommended is to use the Atlas preservative solution. It is simply a saturated solution of sodium arsenite, and when applied to skins, should be diluted with ten times its bulk of water. The skin should be first salted as described above, and then, when the salt has dried, the Atlas preservative solution should be applied to it, and after that has also dried, a second application should be applied. Finally, when the skin is thoroughly dry, the hair should be dusted with naphthalene, the skin folded down in the middle with the hair inside and rolled into a bundle. With very thick skins such as those of the bison it is very essential that the salt should be well rubbed in.

CHROME TANNING.

There are some people who will doubtless be glad to have a simple method of curing skins themselves, and this can be done by the chrome process comparatively easily. Chrome tanning is a very simple matter when the solutions are properly made up and can easily be carried on in a couple of big chatties,¹ and the process is complete within a couple of days for ordinary thin skins such as those of the deer, cheetah and tiger.

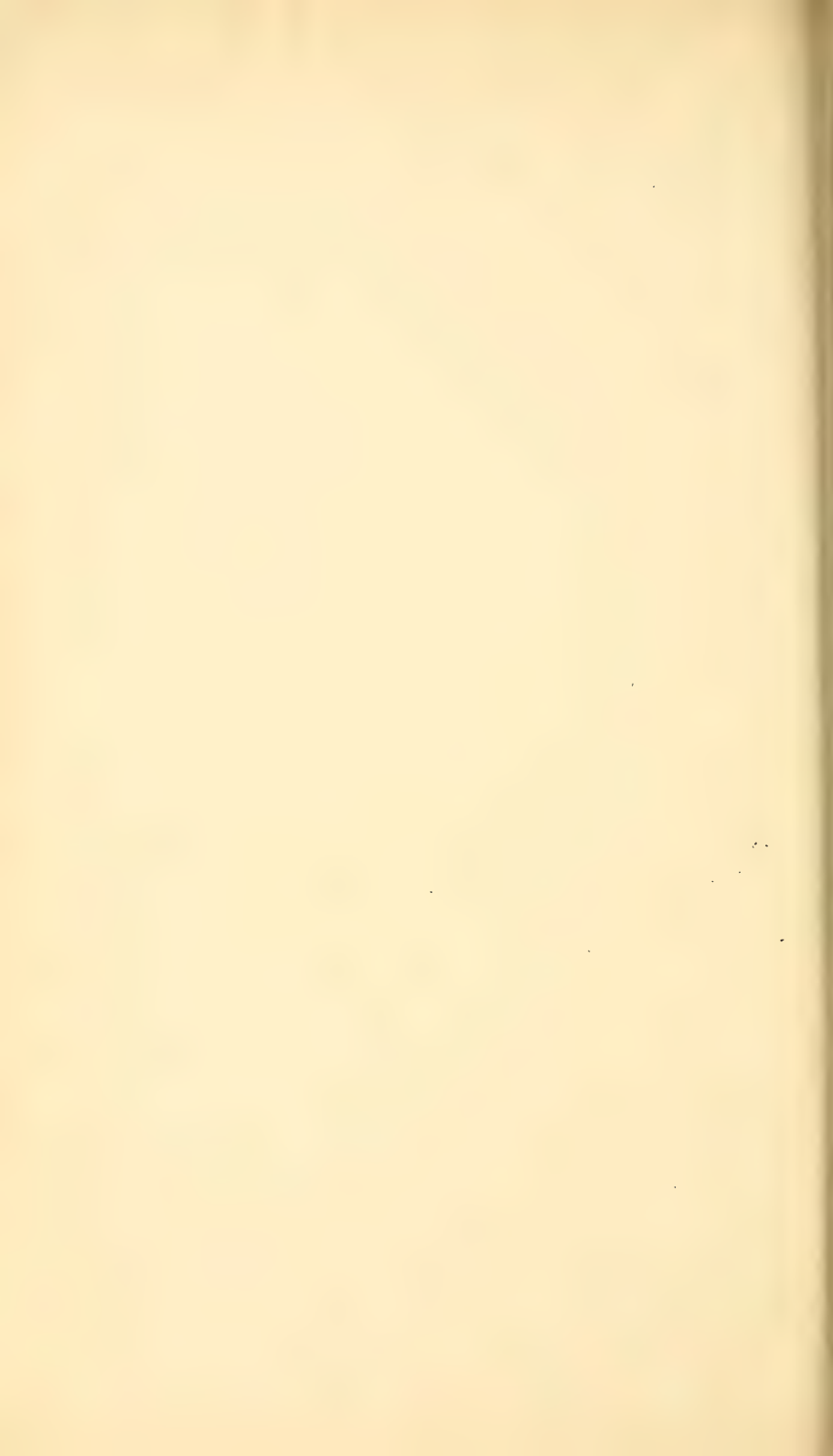
TANOLIN.

Many tanning solutions are made up in chemical works and sold ready for use to chrome tanners. Amongst these is "Tanolin," made by the Martin Dennis Company of New York, New Jersey, U.S.A. Usually Tanolin is supplied in barrels as a liquid, but some time ago I suggested to this Company that it should supply it in the form of a powder, which can be easily carried about in tins. This it has succeeded in doing, and for some time past we have been conducting experiments in chrome tanning with the dry Tanolin powder. The results have been satisfactory, and I can recommend it for use by any one who wishes to become an amateur tanner on a small scale. After the skins have been thoroughly cleansed, all that is necessary is to immerse them for a period of from one to two days in a moderately diluted solution of Tanolin powder. When the tanning is complete the skins should be taken out and thoroughly washed; they should be stretched tightly on a board to dry and finally staked so as to get the leather in a soft and supple condition. The staking iron used by tanners is a semi-circular steel blade fixed in a strong wooden support with the timber edge horizontally. When this is not so available the back of a chair often forms a convenient substitute. The skin which may be slightly damp is taken hold of by both hands with the flesh side downwards and drawn backwards and forwards over the edge. Considerable pressure should be exerted and this stretches the skin in every direction and renders it soft and pliant.

¹ Pots.

GLOSSARY OF NATIVE WORDS

<i>Almírah</i>	A wardrobe.
<i>Amsham</i>	In Wynaad, a revenue division, corresponding to parish.
<i>Arasu</i>	The title of the proprietor of the Nelliylam Estate, who is the "jenmi" of a large part of Munnanad Amsham.
<i>Bandy</i>	A native cart.
<i>Barcuttie</i> ...	A bill-hook or curved knife, in the use of which the local tribes are expert.
<i>Bund</i>	A dam for holding up water.
<i>Cumbly</i>	A rough native blanket, in universal use in Wynaad.
<i>Dhóray</i>	A title of respect, meaning "Sir" or "Gentleman," used by coolies to their European employers.
<i>Enám</i>	A "tip" or gift, usually of money.
<i>Ghât</i>	A pass between mountains. In the plural, the name given to the mountains which run down the E. and W. coasts of India.
<i>Jenmi</i>	In Wynaad, a landowner.
<i>Katcheri</i>	The headquarters of a Taluq, where the courts and revenue offices are held.
<i>Kodumai</i> ...	The top-knot of long hair worn by Hindus.
<i>Kovilágom</i> ..	In Malabar, the residence of a Rajah.
<i>Machán</i>	A raised platform, usually erected in a tree.
<i>Maistry</i>	The headman of a gang of coolies.
<i>Mamotie</i>	A hoe used on estates.
<i>Mund</i>	A Toda village or collection of huts.
<i>Munsiff</i>	A judge of a civil court.
<i>Mutt</i>	A Kurumba village or collection of huts.
<i>Nullah</i>	A ravine.
<i>Pál</i>	A small tent.
<i>Ryot</i>	A native agriculturist or cultivator.
<i>Saman</i>	Impedimenta.
<i>Sheristadar</i> .	A native magistrate, subordinate to a Tahsildar.
<i>Shola</i>	A wood.
<i>Syce</i>	A native groom.
<i>Tahsildar</i> ...	The officer in charge of a Taluq, vested with revenue and judicial functions.
<i>Taluq</i>	A large revenue division. A "District" comprises several "Taluqs."
<i>Tamasha</i>	A "show" or performance.
<i>Tirunálpad</i> .	The title of the Nilambur Rajah, who owns a large part of Wynaad.
<i>Tote</i>	An estate.
<i>Zemindar</i> ...	An influential landed proprietor.



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